

**JACOBSEN**

A Textron Company

Technical Manual

Eclipse® InCommand™

- 63300 – Eclipse 118, 18" 11 Blade Reel, Gen-Set
- 63313 – Eclipse 118, 18" 11 Blade Reel, Battery Pack
- 63327 – Eclipse 118, 18" 15 Blade Reel, Gen-Set
- 63331 – Eclipse 118, 18" 15 Blade Reel, Battery Pack
- 63301 – Eclipse 118F, Floating 18" 11 Blade Reel, Gen-Set
- 63314 – Eclipse 118F, Floating 18" 11 Blade Reel, Battery Pack
- 63327 – Eclipse 118F, Floating 18" 15 Blade Reel, Gen-Set
- 63332 – Eclipse 118F, Floating 18" 15 Blade Reel, Battery Pack
- 63302 – Eclipse 122, 22" 11 Blade Reel, Gen-Set
- 63311 – Eclipse 122, 22" 11 Blade Reel, Battery Pack
- 63325 – Eclipse 122, 22" 15 Blade Reel, Gen-Set
- 63329 – Eclipse 122, 22" 15 Blade Reel, Battery Pack
- 63303 – Eclipse 122F, Floating 22" 11 Blade Reel, Gen-Set
- 63312 – Eclipse 122F, Floating 22" 11 Blade Reel, Battery Pack
- 63326 – Eclipse 122F, Floating 22" 15 Blade Reel, Gen-Set
- 63330 – Eclipse 122F, Floating 22" 15 Blade Reel, Battery Pack
- 63304 – Eclipse 126, 26" 7 Blade Reel, Gen-Set
- 63315 – Eclipse 126, 26" 7 Blade Reel, Battery Pack

WARNING

WARNING: If incorrectly used this machine can cause severe injury. Those who use and maintain this machine should be trained in its proper use, warned of its dangers and should read the entire manual before attempting to set up, operate, adjust or service the machine.

JACOBSEN
A Textron Company**When Performance Matters.™**

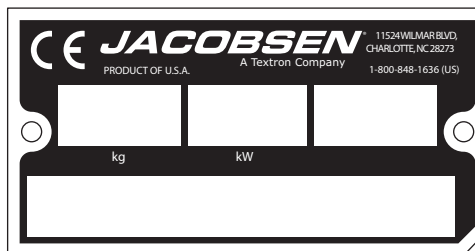
FOREWORD

This manual contains safety, operating, adjustment, maintenance, troubleshooting instructions and parts list for your new Jacobsen machine. This manual should be stored with the equipment for reference during operation.

Before you operate your machine, you and each operator you employ should read the manual carefully in its entirety. By following the safety, operating and maintenance instructions, you will prolong the life of your equipment and maintain its maximum efficiency.

If additional information is needed, contact your Jacobsen Dealer.

The serial plate is located on the rear crossbar of the frame. Jacobsen recommends you record these numbers below for easy reference.



Suggested Stocking Guide

To Keep your Equipment fully operational and productive, Jacobsen suggests you maintain a stock of the more commonly used maintenance items. We have included part numbers for additional support materials and training aids.

To order any of the following material:

1. Write your full name and complete address on your order form.

2. Explain where and how to make shipment:

☐ UPS

☐ Regular Mail

☐ Overnight

☐ 2nd Day

3. Order by the quantity desired, the part number, and the description of the part.

4. Send or bring the order to your authorized Jacobsen Dealer.

Service Parts

| Qty. | Part No. | Description | Qty. | Part No. | Description |
|------|----------|------------------------|------|----------|------------------------------|
| | 4102780 | 50 Amp Fuse | | 2811106 | Motor to Pulley Belt |
| | 4169341 | 25 Amp Clrcuit Breaker | | 2811070 | Pulley to Traction Drum Belt |
| | 4131618 | Ignition Key | | | |

Service Support Material

| Qty. | Part No. | Description |
|------|----------|-------------------------|
| | 4170162 | Technical Manual |
| | 4166960 | Operator Training Video |

| Qty. | Description |
|------|----------------|
| | Service Manual |

2006/42/EC

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Proposition 65 Warning

This product contains or emits chemicals known to State of California to cause cancer and birth defects or other reproductive harm.

| | | | |
|--------------------------------------|----|--|----|
| 1 SAFETY | | 8 FLOATING HEAD REEL ADJUSTMENTS | |
| 1.1 Operating Safety | 4 | 8.1 General | 37 |
| 1.2 Important Safety Notes | 5 | 8.2 Bedknife-To-Reel | 37 |
| 2 SPECIFICATIONS | | 8.3 Bedknife Adjustment | 38 |
| 2.1 Product Identification | 6 | 8.4 Cutting Height | 39 |
| 2.2 Mower | 7 | 8.5 Reel Bearing | 39 |
| 2.3 Traction and Differential | 7 | 8.6 Reel Assembly Removal | 39 |
| 2.4 Weights | 7 | 9 BATTERY POWER MODULE | |
| 2.5 Gen-Set Power Module | 7 | 9.1 Safety | 40 |
| 2.6 Battery Power Module | 8 | 9.2 General | 40 |
| 2.7 Accessories & Support Literature | 9 | 9.3 Maintenance | 41 |
| 2.8 Declaration of Conformity | 10 | 9.4 Cleaning Batteries | 41 |
| 3 DECALS | | 9.5 Battery Charger | 42 |
| 3.1 Decals | 13 | 9.6 Battery Installation | 43 |
| 4 CONTROLS | | 9.7 Replacing Battery Pack | 44 |
| 4.1 Icons | 16 | 10 GEN-SET POWER MODULE | |
| 4.2 Handle Controls | 16 | 10.1 Engine | 45 |
| 4.3 LCD Display | 17 | 10.2 Engine Oil | 45 |
| 4.4 Frequency of Cut | 20 | 10.3 Engine Speed | 46 |
| 4.5 Gas Power Module Controls | 24 | 10.4 Fuel | 46 |
| 4.6 Battery Power Module Controls | 24 | 11 MAINTENANCE | |
| 5 OPERATION | | 11.1 General | 47 |
| 5.1 Daily Inspection | 25 | 11.2 Tires (Option) | 47 |
| 5.2 Interlock System (O.P.C.) | 25 | 11.3 Wheel Bearing | 47 |
| 5.3 Operating Procedures | 26 | 11.4 Backlapping and Grinding | 48 |
| 5.4 Starting/Stopping | 27 | 11.5 Storage | 49 |
| 5.5 Mowing | 28 | 12 TROUBLESHOOTING | |
| 5.6 Transport Wheels (Optional) | 29 | 12.1 General | 50 |
| 5.7 Grass Catcher | 29 | 13 MAINTENANCE & LUBRICATION CHARTS | |
| 5.8 Daily Maintenance | 30 | 13.1 General | 51 |
| 6 ADJUSTMENTS (ALL UNITS) | | 13.2 Maintenance Chart | 51 |
| 6.1 General | 31 | 13.3 Lubrication Chart | 52 |
| 6.2 Brake | 31 | 14 PARTS CATALOG | |
| 6.3 Speed Paddle Stops | 31 | 14.1 How To Use The Parts Catalog | 53 |
| 6.4 Handle | 32 | 14.2 To Order Parts | 53 |
| 6.5 Traction Belts | 32 | 14.3 Parts Catalog Table of Contents | 53 |
| 6.6 Front Roller Weight | 33 | | |
| 6.7 Torque Specification | 34 | | |
| 7 FIXED HEAD REEL ADJUSTMENTS | | | |
| 7.1 General | 35 | | |
| 7.2 Reel To Bedknife | 35 | | |
| 7.3 Bedknife Adjustment | 36 | | |
| 7.4 Cutting Height | 36 | | |

1 SAFETY

1.1 OPERATING SAFETY



WARNING

EQUIPMENT OPERATED IMPROPERLY OR BY UNTRAINED PERSONNEL CAN BE DANGEROUS.

Familiarize yourself with the location and proper use of all controls. Inexperienced operator's should receive instruction from someone familiar with the equipment before being allowed to operate the machine.

1. Safety is dependent upon the awareness, concern and prudence of those who operate or service the equipment. Never allow minors to operate any equipment.
 2. It is your responsibility to read this manual and all publications associated with this equipment (Engine Manual, Battery Charger Manual, accessories, and attachments). If the operator cannot read English it is the owner's responsibility to explain the material contained in this manual to them.
 3. Learn the proper use of the machine, the location and purpose of all the controls before you operate the equipment. Working with unfamiliar equipment can lead to accidents.
 4. Never allow anyone to operate or service the machine or its attachments without proper training and instructions; or while under the influence of alcohol or drugs.
 5. Wear all the necessary protective clothing and personal safety devices to protect your head, eyes, ears, hands, and feet. Long hair, loose clothing, or jewelry may get tangled in moving parts. Operate the machine only in daylight or in good artificial light.
 6. Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by Jacobsen.
 7. Stay alert for holes in the terrain and other hidden hazards.
 8. Inspect the area where the equipment will be used. Pick up all the debris you can find before operating. Beware of overhead obstructions (low tree limbs, electrical wires, etc.) and also underground obstacles (sprinklers, pipes, tree roots, etc.) Enter a new area cautiously. Stay alert for hidden hazards.
 9. Do not carry passengers. Keep bystanders and pets a safe distance away.
 10. Never direct discharge of material toward bystanders, nor allow anyone near the machine while in operation. The owner/operator can prevent and is responsible for injuries inflicted to themselves, to bystanders, and damage to property.
 11. Never operate equipment that is not in perfect working order or is without decals, guards, shields, discharge deflectors, or other protective devices securely fastened in place.
 12. Never disconnect or bypass any switch.
 13. Keep the unit clean. Disconnect the power connector before storing. Do not store unit near an open flame or flammable debris.
 14. Place unit on a flat surface, disengage all drives, and engage parking brake before energizing the unit.
 15. Local regulations may restrict the age of the operator.
 16. Operate the machine across the face of the slope (horizontally), not up and down the slope (vertically). Never operate on wet grass.
 17. Always operate at speeds that allow you to have complete control of the machine. Be sure of your footing, keep a firm hold on the handle, and walk, never run.
- #### **Gen-Set Power Module**
18. Carbon monoxide in the exhaust fumes can be fatal when inhaled. Never operate the engine without proper ventilation.
 19. Fuel is highly flammable, handle with care. See Section 4.8 .
 20. Before you clean, adjust or repair this equipment, stop the engine, disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting. Disconnect the power connector.
 21. Keep the engine clean. Allow the engine to cool, always close fuel shut off valve, and remove the spark plug wire from the spark plug before storing. Do not store unit near an open flame or flammable debris.
- #### **Battery Power Module**
22. Before you clean, adjust, or repair this equipment, disconnect the power connector.
 23. Do not remove battery pack without unit on kickstand.

This machine is to be operated and maintained as specified in this manual and is intended for the professional maintenance of specialized turf grasses. It is not intended for use on rough terrain or long grasses.

1.2 IMPORTANT SAFETY NOTES



This safety alert symbol is used to alert you to potential hazards.

DANGER - Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

WARNING - Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

CAUTION - Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury and property damage. It may also be used to alert against unsafe practices.

NOTICE - Indicates a potentially hazardous situation which, if not avoided, **MAY** result in property damage. It may also be used to alert against unsafe practices.

For pictorial clarity, some illustrations in this manual may show shields, guards or plates open or removed. Under no circumstances should this equipment be operated without these devices securely fastened in place.



WARNING

The Interlock System on this machine will shut off the reel and traction drive if the operator releases the O.P.C. (Operator Presence Control) bail.

To protect the operator and others from injury, never operate equipment with the Interlock System disconnected or malfunctioning.



WARNING

1. Before leaving the operator's position for any reason:
 - a. Disengage all drives.
 - b. Engage parking brake.
 - c. Disconnect power connector.
2. Keep hands, feet, and clothing away from moving parts. Wait for all movement to stop before you clean, adjust, or service the machine.
3. Keep the area of operation clear of all bystanders and pets.
4. Chock or block the wheels if the machine is left on an incline.
5. Never operate mowing equipment without the discharge deflector securely fastened in place.

By following all instructions in this manual, you will prolong the life of your machine and maintain its maximum efficiency. Adjustments and maintenance should always be performed by a qualified technician.

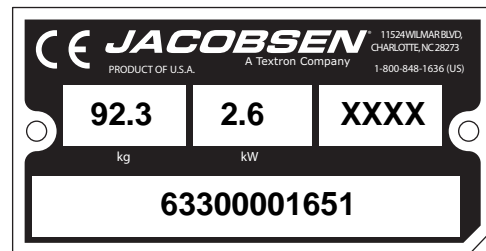
If additional information or service is needed, contact your Authorized Jacobsen Dealer who is kept informed of the latest methods to service this equipment and can provide prompt and efficient service. **Use of other than original or authorized Jacobsen parts and Accessories will void the warranty.**

2 SPECIFICATIONS

2.1 PRODUCT IDENTIFICATION

| | |
|------------|--|
| 63300..... | Eclipse® 118 base unit with 18 in. (457 mm) 11 blade reel and InCommand™ control system. Gen-Set power module. |
| 63313..... | Eclipse® 118 base unit with 18 in. (457 mm) 11 blade reel and InCommand™ control system. Battery power module. |
| 63327..... | Eclipse® 118 base unit with 18 in. (457 mm) 15 blade reel and InCommand™ control system. Gen-Set power module. |
| 63331..... | Eclipse® 118 base unit with 18 in. (457 mm) 15 blade reel and InCommand™ control system. Battery power module. |
| 63301..... | Eclipse® 118F base unit with floating 18 in. (457 mm) 11 blade reel and InCommand™ control system. Gen-Set power module. |
| 63314..... | Eclipse® 118F base unit with floating 18 in. (457 mm) 11 blade reel and InCommand™ control system. Battery power module. |
| 63328..... | Eclipse® 118F base unit with floating 18 in. (457 mm) 15 blade reel and InCommand™ control system. Gen-Set power module. |
| 63332..... | Eclipse® 118F base unit with floating 18 in. (457 mm) 15 blade reel and InCommand™ control system. Battery power module. |
| 63302..... | Eclipse® 122 base unit with 22 in. (559 mm) 11 blade reel and InCommand™ control system. Gen-Set power module. |
| 63311..... | Eclipse® 122 base unit with 22 in. (559 mm) 11 blade reel and InCommand™ control system. Battery power module. |
| 63325..... | Eclipse® 122 base unit with 22 in. (559 mm) 15 blade reel and InCommand™ control system. Gen-Set power module. |
| 63329..... | Eclipse® 122 base unit with 22 in. (559 mm) 15 blade reel and InCommand™ control system. Battery power module. |
| 63303..... | Eclipse® 122F base unit with floating 22 in. (457 mm) 11 blade reel and InCommand™ control system. Gen-Set power module. |

| | |
|---------------------|--|
| 63312..... | Eclipse® 122F base unit with floating 22 in. (457 mm) 11 blade reel and InCommand™ control system. Battery power module. |
| 63326..... | Eclipse® 122F base unit with floating 22 in. (457 mm) 15 blade reel and InCommand™ control system. Gen-Set power module. |
| 63330..... | Eclipse® 122F base unit with floating 22 in. (457 mm) 15 blade reel and InCommand™ control system. Battery power module. |
| 63304..... | Eclipse® 126 base unit with 26 in. (660 mm) 7 blade reel and InCommand™ control system. Gen-Set power module. |
| 63315..... | Eclipse® 126 base unit with 26 in. (660 mm) 7 blade reel and InCommand™ control system. Battery power module. |
| Serial Number | An identification plate, like the one shown, listing the serial number, is attached to the rear crossbar. |



| Product | EEC Sound Power | Vibration M/S ² |
|---------|-----------------|----------------------------|
| | | Arms |
| 63300 | 93 dBA | 3.344 |
| 63301 | 94 dBA | 3.110 |
| 63302 | 88 dBA | 3.877 |
| 63303 | 88 dBA | 5.061 |
| 63304 | 93 dBA | 4.988 |
| 63311 | 83 dBA | 0.822 |
| 63312 | 83 dBA | 0.481 |
| 63313 | 84 dBA | 0.661 |
| 63314 | 85 dBA | 0.901 |
| 63315 | 86 dBA | 0.882 |
| 63325 | 95 dBA | 2.342 |
| 63326 | 95 dBA | 3.055 |
| 62237 | 86 dBA | 2.184 |
| 63328 | 86 dBA | 3.181 |
| 63329 | 86 dBA | 1.004 |
| 63330 | 86 dBA | 1.066 |
| 63331 | 86 dBA | 1.440 |
| 63332 | 86 dBA | 0.661 |

2.2 MOWER

| | | | |
|---------------------|---|------------------------|----------------------------------|
| Reel..... | 7, 9, 11, or 15 blades, hardened high manganese carbon steel. | Low Profile..... | 1/8" - 7/32" (3.2 - 5.6 mm) cut |
| Reel Diameter | 5 in. (127 mm) | Tournament..... | 3/32" - 5/32" (2.4 - 4 mm) cut |
| Cutting Width | 18, 22 or 26 in. (457, 559 or 660 mm) | Super Tournament | 1/16" - 7/64" (1.6 - 2.8 mm) cut |
| Height of cut..... | 1/16 to 7/16 in. (1.6 to 11 mm) | Frequency of Cut | |
| Bedknives | Hardened carbon steel | 15 Blade Reel | 0.064 - 0.133 in. (1.6 - 3.4 mm) |
| High Profile | 5/32" - 7/16" (4 - 11 mm) cut | 11 Blade Reel | 0.087 - 0.178 in. (2.2 - 4.5 mm) |
| | | 9 Blade Reel | 0.106 - 0.217 in. (2.7 - 5.5 mm) |
| | | 7 Blade Reel | 0.136 - 0.279 in. (3.4 - 7.1 mm) |

2.3 TRACTION AND DIFFERENTIAL

| | | | |
|------------------------------|--|----------------------|---|
| Transport Tires (Option) ... | 11 x 4 pneumatic bidirectional. | Mowing speed..... | 0 - 3.4 m.p.h. (5.31 km/h) |
| Reel Drive | Independent direct drive motor. | Differential..... | Full automotive type, housed in traction drum |
| Traction Drive..... | Independent drive motor with two synchronous polyurethane belts. | Rear Drive Drum..... | Machined aluminum alloy |
| Traction Reduction Ratio.. | 15:15:1 | | 2 Section, 7-3/4 (O.D.) x 10-31/32 |

2.4 WEIGHTS

Gen Set Mowers

| Weights: Without Grass Catcher | Lbs. | (kg) |
|-------------------------------------|------|---------|
| 63300 – Eclipse 118 11 Blade | 203 | (92.3) |
| 63301 – Eclipse 118F 11 Blade | 243 | (110.4) |
| 63302 – Eclipse 122 11 Blade | 224 | (101.6) |
| 63303 – Eclipse 122F 11 Blade | 249 | (113.0) |
| 63304 – Eclipse 126..... | 233 | (105.8) |
| 63325 – Eclipse 118 15 Blade..... | 206 | (93.4) |
| 63326 – Eclipse 118F 15 Blade | 246 | (111.6) |
| 63327 – Eclipse 122 15 Blade | 227 | (103.0) |
| 63328 – Eclipse 122F 15 Blade | 252 | (114.3) |

Battery Pack Mowers

| Weights: Without Grass Catcher | Lbs. | (kg) |
|-------------------------------------|------|---------|
| 63311 – Eclipse 122 11 Blade..... | 241 | (109.3) |
| 63312 – Eclipse 122F 11 Blade | 272 | (123.5) |
| 63313 – Eclipse 118 11 Blade | 223 | (101.3) |
| 63314 – Eclipse 118F 11 Blade | 263 | (119.5) |
| 63315 – Eclipse 126 | 253 | (114.9) |
| 63329 – Eclipse 118 15 Blade | 244 | (110.7) |
| 63330 – Eclipse 118F 15 Blade | 275 | (124.7) |
| 63331 – Eclipse 122 15 Blade | 226 | (102.5) |
| 63332 – Eclipse 122F 15 Blade | 266 | (120.7) |

2.5 GEN-SET POWER MODULE

| | |
|---|---|
| Engine..... | Honda GX-120 K1Q JG2 4-Cycle, 4HP (2.98 kW) at 4000 RPM |
| Speed..... | Engine speed set at factory for generator to produce 59.8 volts with no load. |
| Fuel | Regular Grade (Unleaded) |
| Fuel Tank | 0.66 Gallon (2.5 liter) |
| Use clean, fresh, regular unleaded gasoline, 85 octane minimum. Refer to the engine's operator manual for fuel recommendations when using blended fuel. | |

2 SPECIFICATIONS

2.6 BATTERY POWER MODULE

To ensure the longest battery life possible, the batteries are not shipped with the power module and must be ordered separately. For optimum range and performance use batteries that equal or exceed the Amp-hour rating listed.

System Voltage..... 48 Volt DC

Batteries (4) 12 volt, valve regulated, non-spillable sealed lead acid batteries.

Charger..... 5 Amp, 48 Volt DC, dual input voltage 115/230 Volt AC, 50/60 Hz.

Recommended Battery:

CSB battery is the Jacobsen recommended battery for use in the Eclipse mower.

| Battery Brand | | | | Battery Part Number | | |
|-----------------|----------------|-----------------|------------------|---------------------|-------|-----------|
| CSB | | | | EVX12200 | | |
| Length in. (mm) | Width in. (mm) | Height in. (mm) | Weight lbs. (kg) | Rating Amp-Hr | Volts | Qty Req'd |
| 7-1/8 (181) | 3 (76) | 6-9/16 (167) | 14.7 (6.7) | 20 | 12 | 4 |

CSB batteries can be ordered from these CSB distributors, or from any local battery dealer.

Electronic Distributing

920 Brookstown Ave

Winston Salem, NC 27101

Phone Number - 800-777-1096

Fax Number - 336-723-1098

E-Mail - billedi@bellsouth.net (E-Mail)

Contact Name - Bill Turner

URS Electronics

123 N.E. 7th

Portland, OR 97232

Phone Number - 800-955-4877

Fax Number - 503-232-3373

E-Mail - mark.twietmeyer@ursele.com

Contact Name - Mark Twietmeyer

Alternate Batteries:

These alternate batteries are also currently available. These batteries have the same dimensions and amp-hour ratings, but have not been tested by Jacobsen, and no recommendation is stated or should be implied. Contact your local battery dealer or the manufacturer for sourcing on these batteries.

| Battery Brand | Battery Part Number |
|---------------|---------------------|
| Yuasa | Energys NPX 80 |
| Panasonic | LC-X1220AP |
| Panasonic | LC-X1220P |
| Discover | D12200 |
| Power Sonic | PSH-12180 |
| B.B. Battery | EB20-12 |

(USE ONLY 12 VOLT SLA BATTERIES)

2.7 ACCESSORIES & SUPPORT LITERATURE

Contact your area Jacobsen Dealer for a complete listing of accessories and attachments.



CAUTION

Use of other than Jacobsen authorized parts and accessories may cause personal injury or damage to the equipment, and will void the warranty.

Accessories

| | |
|---|---------|
| Lapping Compound (180 grit) | 554598 |
| Orange Touch-up Paint (12 oz. spray) | 554598 |
| 18 in. Fixed Head Grass Catcher | 68122 |
| 18 in. Floating Head Grass Catcher | 4174683 |
| 22 in. Fixed Head Grass Catcher | 68123 |
| 22 in. Floating Head Grass Catcher | 4114788 |
| 26 in. Fixed Head Grass Catcher | 68124 |
| 22 in. Push Brush (Fixed Head Units) | 68611 |
| 22 in. Front Roller Brush (Fixed Head Units) | 68610 |
| 22 in. Front Roller Brush (Floating Head Units) | 68536 |
| Light Kit | 63307 |
| Battery Charger | 68661 |
| Removable Battery Pack (Does not include batteries) | 63316 |
| Mower Caddy Battery Pack Mounting Kit | 68660 |
| Transport Tires | 62293 |
| Mower Caddy | 68648 |
| Mower Caddy 18" Fixed Head Latch Kit | 68649 |
| Mower Caddy 22" Fixed Head Latch Kit | 68650 |
| Mower Caddy 26" Fixed Head Latch Kit | 68651 |
| Mower Caddy 22" Floating Head Latch Kit | 63310 |
| 22 in. Turf Groomer (122 Units Requires 67965) | 67966 |
| Turf Groomer Adapter Kit | 67965 |

Solid Rollers

| | |
|---------------------------|-------|
| 18 in. with Scraper | 68626 |
| 22 in. with Scraper | 68530 |
| 26 in. with Scraper | 68627 |

Grooved Rollers

| | |
|--------------------------------|-------|
| 18 in. Machined Steel | 68616 |
| 22 in. Assembled Disc | 68527 |
| 22 in. Machined Aluminum | 68614 |
| 22 in. Machined Steel | 68613 |
| 22 in. Segmented Roller | 68673 |
| 26 in. Machined Aluminum | 68617 |
| 26 in. Machined Steel | 68628 |

Floating Head Reels

| | |
|--------------------------------------|---------|
| 22 in. 11 Blade Reel | 63308 |
| 22 in. 15 Blade Reel | 63333 |
| 18 in. 11 Blade Reel | 63309 |
| 18 in. 15 Blade Reel | 62824 |
| Right Hand Reel Conversion Kit | 4172485 |
| Left Hand Reel Conversion Kit | 4172441 |

Additional Power Modules

| | |
|--|---------|
| Gen-Set Power Module | 63305 |
| Battery Power Module | 63306 |
| Fixed Head Power Module Mount | 4165263 |
| Floating Head Power Module Mount | 4164220 |

Support Literature

| | |
|-----------------------------------|---------|
| Technical Manual | 4170162 |
| Operator Training Video | 4166960 |
| Fixed Head Repair Manual | 4181380 |
| Floating Head Repair Manual | 4181381 |

2 SPECIFICATIONS


2.8 DECLARATION OF CONFORMITY

DECLARATION OF CONFORMITY • ДЕКЛАРАЦИЯ ЗА СЪОТВЕТСТВИЕ • PROHLÁŠENÍ O SHODĚ • OVERENSSTEMMELSESESKLÆRING • CONFORMITEITSVERKLARING • VASTAVUSDEKLARATSIOON • VAATIMUSTENMUKAISUUSVAKUUTUS • DECLARATION DE CONFORMITE • KONFORMITÄTSEKTLÄRUNG • ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ • MEGFELELŐSÉGI NYILATKOZAT • DICHIARAZIONE DI CONFORMITÀ • ATBILSTĪBAS DEKLARĀCIJA • ATITIKTIES DEKLARACIJA • DIKJARAZZJONI TAL-KONFORMITÀ • DEKLARACJA ZGODNOŚCI • DECLARAÇÃO DE CONFORMIDADE • DECLARAȚIE DE CONFORMITATE • VYHLÁSENIE O ZHODE • IZJAVA O SKLADNOSTI • DECLARACIÓN DE CONFORMIDAD • DEKLARATION OM ÖVERENSSTÄMMELSE

| | |
|--|---|
| Business name and full address of the manufacturer • Търговско име и пълен адрес на производителя • Obchodní jméno a plná adresa výrobce • Producentens firmanavn og fulde adresse • Bedrijfsnaam en volledige adres van de fabrikant • Tootja ärinimi ja täielik aadress • Valmistajan toiminimi ja täydellinen osoite • Nom commercial et adresse complète du fabricant • Firmenname und vollständige Adresse des Herstellers • Εταιρεία και ταχυδρομική διεύθυνση κατασκευαστή • A gyártó üzleti neve és teljes címe • Ragione sociale e indirizzo completo del fabbricante • Uzņēmuma nosaukums un pilna ražotāja adrese • Verslo pavadinimas ir pilnas gamintojo adresas • Isem kummerčiali u indirizz shih tal-fabbrikant • Nazwa firmy i pełny adres producenta • Nome da empresa e endereço completo do fabricante • Denumirea comercială și adresa completă a producătorului • Obchodný názov a úplná adresa výrobcu • Naziv podjetja in polni naslov proizvajalca • Nombre de la empresa y dirección completa del fabricante • Tillverkarens företagsnamn och kompletta adress | Jacobsen, A Textron Company 11524 Wilmar Blvd. Charlotte, NC 28273, USA |
| Product Code • Код на продукта • Kód výrobku • Produktkode • Productcode • Toote kood • Tuotekoodi • Code produit • Produktcode • Κωδικός προϊόντος • Termékkód • Codice prodotto • Produkta kods • Produkto kodas • Kodici tal-Prodott • Kod produktu • Código do Produto • Cod produs • Kód výrobku • Oznaka proizvoda • Código de producto • Produktkod | 63300 63301 63302 63303 63304 63311 63312 63313 63314 63315 63325 63326 63327 63328 63329 63330 63331 63332 |
| Machine Name • Наименование на машината • Název stroje • Maskinnavn • Machinenam • Masina nimi • Laitteen nimi • Nom de la machine • Maschinenbezeichnung • Ονομασία μηχανήματος • Gépnév • Denominazione della macchina • Iekārtas nosaukums • Mašinos pavadinimas • Isem tal-Magna • Nazwa urządzenia • Nome da Máquina • Numele echipamentului • Název stroja • Naziv stroja • Nombre de la máquina • Maskinens namn | Eclipse® 118 Hybrid 11 Blade Eclipse® 118F Hybrid 11 Blade Eclipse® 122 Hybrid 11 Blade Eclipse® 122F Hybrid 11 Blade Eclipse® 126 Hybrid 7 Blade Eclipse® 122 Battery 11 Blade Eclipse® 122F Battery 11 Blade Eclipse® 118 Battery 11 Blade Eclipse® 118F Battery 11 Blade Eclipse® 126 Battery 7 Blade Eclipse® 122 Hybrid 15 Blade Eclipse® 122F Hybrid 15 Blade Eclipse® 118 Hybrid 15 Blade Eclipse® 118F Hybrid 15 Blade Eclipse® 122 Battery 15 Blade Eclipse® 122F Battery 15 Blade Eclipse® 118 Battery 15 Blade Eclipse® 118F Battery 15 Blade |
| Designation • Предназначение • Označení • Betegnelse • Benaming • Nimetus • Tyypimerkintä • Pažymėjimas • Bezeichnung • Χαρακτηρισμός • Megnevezés • Funzione • Apzīmējums • Lithuanian • Denominazzjoni • Oznaczenie • Designação • Specificație • Označenie • Namen stroja • Descripción • Beteckning | Lawnmower, Article 12, Item 32 |
| Serial Number • Серийн номер • Sériové číslo • Seriennummer • Seriennummer • Seerianumber • Valmistusnumero • Numéro de série • Seriennummer • Σειριακός αριθμός • Sorozatszám • Numero di serie • Sērijas numurs • Serijos numeris • Numru Serjali • Numer seryjny • Número de Série • Număr de serie • Sériové číslo • Serijska številka • Número de serie • Seriennummer | 6330001651-6330004500 6330101651-6330104500 6330201651-6330204500 6330301651-6330304500 6330401651-6330404500 6331101651-6331104500 6331201651-6331204500 6331301651-6331304500 6331401651-6331404500 6331501651-6331504500 6332501651-6332504500 6332601651-6332604500 6332701651-6332704500 6332801651-6332804500 6332901651-6332904500 6333001651-6333004500 6333101651-6333104500 6333201651-6333204500 |
| Engine • Двигател • Motor • Motor • Motor • Mootor • Moottori • Moteur • Motor • Μηχανή • Modulén • Motore • Dzinējs • Variklis • Sahha Netta Installata • Silnik • Motor • Motor • Motor • Motor • Motor • Motor | Hybrid Models Honda GX-120 Gas Battery Models Aspen Motor 48V Brushless DC |
| Net Installed Power • Нетна инсталирана мощност • Čistý instalovaný výkon • Installeret nettoeffekt • Netto geïnstalleerd vermogen • Installeeritud netovõimsus • Asennettu nettoteho • Puissance nominale nette • Installierte Nettoleistung • Καθαρή εγκατεστημένη ισχύς • Nettó beépített teljesítmény • Potenza netta installata • Pareždētā tīkla jauda • Grynoji galia • Wisa' tal-Qtigh • Moc zainstalowana netto • Potência instalada • Puterea instalată netă • Čistý inštalovaný výkon • Neto vgrajena moč • Potencia instalada neta • Nettoeffekt | Hybrid Models 2,98 kW @ 3000 RPM Battery Models 1,3 kW @ 2200 RPM |

| | |
|---|--|
| Cutting Width • Широчина на рязане • Šírka fezu • Skærebredde • Maaibreedte • Lõikelaius • Leikkuleveys • Largeur de coupe • Schnittbreite • Μήκος ιωνέζας • Vágási szélesség • Larghezza di taglio • Griekšanas platums • Pļovimo plotis • Tikkonforma mad-Direttivi • Szerokość cięcia • Largura de Corte • Lățimea de tăiere • Šírka záberu • Širina reza • Anchura de corte • Klippbredd | 118, 118F - 45,7 cm 122, 122F - 55,9 cm 126 - 66,1 cm |
| Conforms to Directives • В съответствие с директивите • Splňuje podmínky směrníc • Er i overensstemmelse med direktiver • Voldoet aan de richtlijnen • Vastab direktiividele • Direktiivien mukainen • Conforme aux directives • Entspricht Richtlinien • Ακολουθεί τις Οδηγίες • Megfelel az irányelveknek • Conforme alle Direttive • Atbilst direktīvām • Atitinka direktyvų reikalavimus • Valutazzjoni tal-Konformità • Dyrektywy związane • Cumpre as Directivas • Respectă Directivele • Je v súlade so smernicami • Skladnost z direktivami • Cuple con las Directivas • Uppfyller direktiv | 2004/108/EC 2006/42/EC 2000/14/EC, 2005/88/EC 2006/66/EC |
| Conformity Assessment • Оценка за съответствие • Hodnocení plnění podmínek • Overensstemmelsesvurdering • Conformiteitsbeoordeling • Vastavushindamine • Vaatimustenmukaisuuden arviointi • Evaluation de conformité • Konformitätsbeurteilung • Διαπίστωση Συμμόρφωσης • Megfelelőség-értékelés • Valutazione della conformità • Atbilstības novērtējums • Atitikties įvertinimas • Livell tal-Qawwa tal-Foss Imkejjel • Ocena zgodności • Avaliação de Conformidade • Evaluarea conformității • Vyhodnotenie zhodnosti • Ocena skladnosti • Evaluación de conformidad • Bedömning av överensstämmelse | 2006/42/EC Annex VIII |
| Measured Sound Power Level • Измерено ниво на звукова мощност • Naměřený akustický výkon • Målte lydstyrkeniveau • Gemeten geluidsniveau • Mõõdetud helivõimsuse tase • Mitattu äänitehotaso • Niveau de puissance sonore mesuré • Gemessener Schalldruckpegel • Σταθμισμένο επίπεδο ηχητικής ισχύος • Mért hangteljesítményszint • Livello di potenza sonora misurato • Izmērtais skaņas jaudas līmenis • Įsmatuotas garso stiprumo lygis • Livell tal-Qawwa tal-Foss Iggarantit • Moc akustyczna mierzona • Nivel sonoro medido • Nivelul măsurat al puterii acustice • Nameraná hladina akustického výkonu • Izmerjena raven zvočne moči • Nivel de potencia sonora medido • Uppmätt ljudeffektsnivå | 118, 118F - 94 dB(A) LWA 122, 122F - 93 dB(A) LWA 126 - 93 dB(A) LWA |
| Guaranteed Sound Power Level • Гарантирано ниво на звукова мощност • Garanterad akustický výkon • Garanteret lydstyrkeniveau • Gegarandeerd geluidsniveau • Garantteeritud helivõimsuse tase • Taattu äänitehotaso • Niveau de puissance sonore garanti • Garantierter Schalldruckpegel • Εγγυημένο επίπεδο ηχητικής ισχύος • Szavatolt hangteljesítményszint • Livello di potenza sonora garantito • Garantētais skaņas jaudas līmenis • Garantuotas garso stiprumo lygis • Livell tal-Qawwa tal-Foss Iggarantit • Moc akustyczna gwarantowana • Nivel sonoro farantido • Nivelul garantat al puterii acustice • Garantovaná hladina akustického výkonu • Zajamčena raven zvočne moči • Nivel de potencia sonora garantizado • Garanterad ljudeffektsnivå | 118, 118F - 94 dB(A) LWA 122, 122F - 95 dB(A) LWA 126 - 94 dB(A) LWA |
| Conformity Assessment Procedure (Noise) • Оценка за съответствие на процедурата (Шум) • Postup hodnocení plnění podmínek (hluk) • Procedure for overensstemmelsesvurdering (Støj) • Procedure van de conformiteitsbeoordeling (geluid) • Vastavushindamismenetlus (müra) • Vaatimustenmukaisuuden arviointimenetely (Melu) • Procédure d'évaluation de conformité (bruit) • Konformitätsbeurteilungsverfahren (Geräusch) • Διαδικασία Αξιολόγησης Συμμόρφωσης (Θόρυβος) • Megfelelőség-értékelési eljárás (Zaj) • Procedura di valutazione della conformità (rumore) • Atbilstības novērtējuma procedūra (troksnis) • Atitikties įvertinimo procedūra (garsas) • Procedura tal-Valutazzjoni tal-Konformità (Foss) • Proceso de ocnen zgodności (poziom hałas) • Processo de avaliação de conformidade (nivel sonoro) Procedura de evaluare a conformității (zgomot) • Postup vyhodnocovania zhodnosti (hluk) • Postopek za ugotavljanje skladnosti (hrup) • Procedimiento de evaluación de conformidad (ruido) • Procedur för bedömning av överensstämmelse (buller) | 2000/14/EC Annex VI, Part 1 |
| UK Notified Body for 2000/14/EC • Нотифициран орган в Обединеното кралство за 2000/14/EO • Úřad certifikovaný podle směrnice č. 2000/14/EC • Det britiske bemyndigede organ for 2001/14/EF • Engels adviesorgaan voor 2000/14/EG • Uhendkuningriigi teavitatud asutus direktiivi 2000/14/EÜ mõistes • Direktiivin 2000/14/EY mukainen ilmoitettu tarkastuslaitos Isossa-Britanniassa • Organisme notifié concernant la directive 2000/14/CE • Britische benannte Stelle für 2000/14/EG • Κοινοποιημένος Οργανισμός Ηνωμένου Βασιλείου για 2000/14/EK • 2000/14/EK – egyesült királyságbeli bejelentett szervezet • Organismo Notificato in GB per 2000/14/CE • 2000/14/EK AK regisztrált organizáció • JK notifikuotosios įstaigos 2000/14/EC • Korp Notifikat tar-Renju Unit ghal 2000/14/KE • Dopuszczona jednostka badawcza w Wielkiej Brytanii wg 2000/14/WE • Entidade notificada no Reino Unido para 2000/14/CE • Organism notificat în Marea Britanie pentru 2000/14/CE • Notifikovaný orgán Spojeného královstva pre smernicu 2000/14/ES • Britanski prijavljeni organ za 2000/14/ES • Cuerpo notificado en el Reino Unido para 2000/14/CE • Anmält organ för 2000/14/EG i Storbritannien | Number: 1088 Sound Research Laboratories Limited Holbrook House, Little Waldingfield Sudbury, Suffolk CO10 0TH |
| Operator Ear Noise Level • Оператор на нивото на доловим от ухото шум • Hladina hluku v oblasti uší operátora • Støjniveau i førers ørehøjde • Geluidsniveau oor bestuurder • Műratase operátori körvas • Melutaso käyttäjän korvan kohdalla • Niveau de bruit à hauteur des oreilles de l'opérateur • Schallpegel am Bedienerohr • Επίπεδο θορύβου σε λειτουργία • A kezelő fülénél mért zajszint • Livello di potenza sonora all'orecchio dell'operatore • Trokšņa līmenis pie operatora auss • Dirbančiojo su mašina patiriamas triukšmo lygis • Livell tal-Foss fil-Widna tal-Operatur • Dopuszczalny poziom hałasu dla operatora • Nivel sonoro nos ovidos do operador • Nivelul zgomotului la urechea operatorului • Hladina hluku pôsobíaca na sluch operátora • Raven hrupa pri užesu upravljavca • Nivel sonoro en el oído del operador • Ljudnivå vid förärens öra | 63300 – 63304 79 dB(a) Leq (2006/42/EC) 63311 – 63315 70 dB(a) Leq (2006/42/EC) 63325–63328 82 dB(a) Leq (2006/42/EC) 63329–63332 xx dB(a) Leq (2006/42/EC) |
| Harmonised standards used • Използвани хармонизирани стандарти • Použité harmonizované normy • Brugte harmoniserede standarder • Gebruikte geharmoniseerde standaards • Kasutatud ühtlustatud standardid • Käytetyt yhdenmukaistetut standardit • Normes harmonisées utilisées • Angewandte harmonisierte Normen • Εναρμονισμένα πρότυπα που χρησιμοποιήθηκαν • Harmonizált szabványok • Standard armonizzati applicati • Izmantotie saskapotie standarti • Panaudoti suderinti standartai • Standards armonizzati usati • Normy spójne powiązane • Normas armonizadas usadas • Standardele armonizate utilizate • Použité harmonizované normy • Uporabljeni usklajeni standardi • Estándares armonizados utilizados • Harmoniserade standarder som används | BS EN ISO 20643 BS EN ISO 5349-1 BS EN ISO 5349-2 BS EN 836 |
| Technical standards and specifications used • Използвани технически стандарти и спецификации • Použité technické normy a specifikace • Brugte tekniske standarder og specifikationer • Gebruikte technische standaards en specificaties • Kasutatud tehnilised standardid ja spetsifikatsioonid • Käytetyt tekniset standardit ja eritelmät • Specifications et normes techniques utilisées • Angewandte technische Normen und Spezifikationen • Τεχνικά πρότυπα και προδιαγραφές που χρησιμοποιήθηκαν • Műszaki szabványok és specifikációk • Standard tecnici e specifiche applicati • Izmantotie tehniskie standarti un specifikācijas • Panaudoti techniniai standartai ir techninė informacija • Standards u specifkazzionijiet techniči užati • Normy i specyfikacje techniczne powiązane • Normas técnicas e especificações usadas • Standardele tehnice și specificațiile utilizate • Použité technické normy a špecifikácie • Uporabljeni tehnični standardi in specifikacije • Estándares y especificaciones técnicas utilizadas • Tekniska standarder och specifikationer som används | B71.4 ISO 2631-1 |
| The place and date of the declaration • Място и дата на декларацията • Misto a datum prohlášení • Sted og dato for erklæringen • Plaats en datum van de verklaring • Deklaratsiooni väljastamise koht ja kuupäev • Vakuutuksen paikka ja päivämäärä • Lieu et date de la déclaration • Ort und Datum der Erklärung • Τόπος και ημερομηνία δήλωσης • A nyilatkozat kelte (hely és idő) • Luogo e data della dichiarazione • Deklarācijas vieta un datums • Deklaracijos vieta ir data • Il-post u d-data tad-dikjarazzjoni • Miejsce i data wystawienia deklaracji • Local e data da declaração • Locul și data declarației • Miesto a dátum vyhlásenia • Kraj in datum izjave • Lugar y fecha de la declaración • Plats och datum för deklarationen | Jacobsen, A Textron Company 11524 Wilmar Blvd. Charlotte, NC 28273, USA April 15, 2011 |

2 SPECIFICATIONS

| | |
|---|--|
| <p>Signature of the person empowered to draw up the declaration on behalf of the manufacturer, holds the technical documentation and is authorised to compile the technical file, and who is established in the Community.</p> <p>Подпис на човека, упълномощен да състави декларацията от името на производителя, който поддържа техническата документация и е оторизиран да изготви техническия файл и е регистриран в общността.</p> <p>Podpis osoby oprávněné sestavit prohlášení jménem výrobce, držet technickou dokumentaci a osoby oprávněné sestavit technické soubory a založené v rámci Evropského společenství.</p> <p>Underskrift af personen, der har fuldmagt til at udarbejde erklæringen på vegne af producenten, der er indehaver af dokumentationen og er bemyndiget til at udarbejde den tekniske journal, og som er baseret i nærområdet.</p> <p>Handtekening van de persoon die bevoegd is de verklaring namens de fabrikant te tekenen, de technische documentatie bewaart en bevoegd is om het technische bestand samen te stellen, en die is gevestigd in het Woongebied.</p> <p>Ühenduse registreeris kaudu isiku allkiri, kes on volitatud tootja nimel deklaratsiooni koostama, kes omab tehnilist dokumentatsiooni ja kellel on õigus koostada tehniline toimik.</p> <p>Sen henkilöön allekirjoitus, jolla on valmistajan valtuutus vakuutuksen laadintaan, jolla on hallussaan tekniset asiakirjat, joka on valtuutettu laatimaan tekniset asiakirjat ja joka on sijoittautunut yhteisöön.</p> <p>Signature de la personne habilitée à rédiger la déclaration au nom du fabricant, à détenir la documentation technique, à compiler les fichiers techniques et qui est implantée dans la Communauté.</p> <p>Unterschrift der Person, die berechtigt ist, die Erklärung im Namen des Herstellers abzugeben, die die technischen Unterlagen aufbewahrt und berechtigt ist, die technischen Unterlagen zusammenzustellen, und die in der Gemeinschaft niedergelassen ist.</p> <p>Υπογραφή στόμου εξουσιοδοτημένου για την σύνταξη της δήλωσης εκ μέρους του κατασκευαστή, ο οποίος κατέχει την τεχνική έκθεση και έχει την εξουσιοδότηση να ταξινομήσει τον τεχνικό φάκελο και ο οποίος είναι διορισμένος στην Κοινότητα.</p> <p>A gyártó nevében meghatalmazott személy, akinek jogában áll módosítania a nyilatkozatot, a műszaki dokumentációt őrizi, engedéllyel rendelkezik a műszaki fájll összeállításához, és aki a közösségben letelepedett személy.</p> <p>Firma della persona autorizzata a redigere la dichiarazione a nome del fabbricante, in possesso Della documentazione tecnica ed autorizzata a costituire il fascicolo tecnico, che deve essere stabilita nella Comunità.</p> <p>Tās personas paraksts, kura ir pilnvarota deklarācijas sastādīšanai ražotāja vārdā, kurai ir tehniskā dokumentācija, kura ir pilnvarota sagatavot tehnisko reģistru un kura ir apstiprināta Kopienā.</p> <p>Asmuo, kuris yra gana žinomas, kuriam gamintojas suteikė įgaliojimus sudaryti šią deklaraciją, ir kuris ją pasirašė, turi visą techninę informaciją ir yra įgaliotas sudaryti techninės informacijos dokumentą.</p> <p>Il-firma tal-persuna awtorizzata li tfassal id-dikjarazzjoni f'isem il-fabbrikant, għandha d-dokumentazzjoni teknika u hija awtorizzata li tikkompila l-fajl tekniku u li hija stabbilita fil-Komunità.</p> <p>Podpis osoby upoważnionej do sporządzenia deklaracji w imieniu producenta, przechowującej dokumentację techniczną, upoważnioną do stworzenia dokumentacji technicznej oraz wyznaczonej ds. wspólnotowych.</p> <p>Assinatura da pessoa com poderes para emitir a declaração em nome do fabricante, que possui a documentação técnica, que está autorizada a compilar o processo técnico e que está estabelecida na Comunidade.</p> <p>Semnătura persoanei împuternicite să elaboreze declarația în numele producătorului, care deține documentația tehnică, este autorizată să compileze dosarul tehnic și este stabilită în Comunitate.</p> <p>Podpis osoby poverenej vystavením vyhlásenia v mene výrobcu, ktorá má technickú dokumentáciu a je oprávnená spracovať technické podklady a ktorá je umiestnená v Spoločenstve.</p> <p>Podpis osebe, pooblašene za izdelavo izjave v imenu proizvajalca, ki ima tehnično dokumentacijo in lahko sestavlja spis tehnične dokumentacije, ter ima sedež v Skupnosti.</p> <p>Firma de la persona responsable de la declaración en nombre del fabricante, que posee la documentación técnica y está autorizada para recopilar el archivo técnico y que está establecido en la Comunidad.</p> <p>Undertecknas av den som bemyndigad att upprätta deklarationen å tillverkarens vägnar, innehar den tekniska dokumentationen och är bemyndigad att sammanställa den tekniska informationen och som är etablerad i gemenskapen.</p> | <p>2006/42/EC Annex II 1.A.2</p> <p>Tim Lansdell Technical Director Ransomes Jacobsen Limited West Road, Ransomes Europark, Ipswich, IP3 9TT, England</p> <p>2006/42/EC Annex II 1.A.10</p>  <p>Vasant Godhalekar VP of Engineering Jacobsen, A Textron Company 11524 Wilmar Blvd, Charlotte, NC 28273, USA</p> |
| <p>Certificate Number • Номер на сертификат • Číslo osvědčení • Certifikatnummer • Certificaatnummer • Sertifikaadi number • Hyväksyntänumero • Numéro de certificat • Bescheinigungsnummer • Αριθμός Πιστοποιητικού • Hitelesítési szám • Numero del certificato • Sertifikata numurs • Sertifikato numeris • Numru tač-Certifikat • Numer certyfikatu • Número do Certificado • Număr certificat • Číslo osvedčenia • Številka certifikata • Número de certificado • Certifikatsnummer</p> | <p>4170162 Rev G</p> |

2.1 DECALS

Familiarize yourself with the following decals. They are critical to the safe operation of the mower. REPLACE DAMAGED DECALS IMMEDIATELY.



DANGER

To prevent injury, disengage all drives, engage parking brake, turn off key switch and disconnect power connector before working on machine or emptying grass catchers.

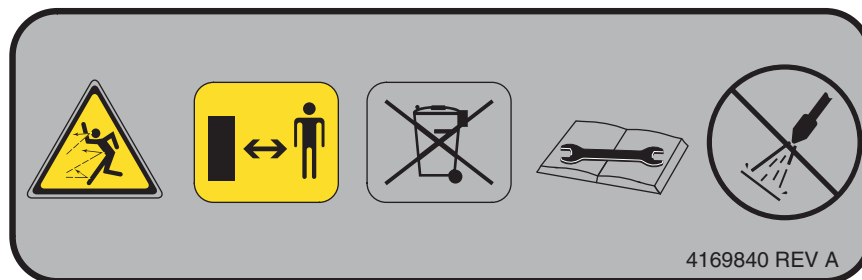


DANGER

Keep hands and feet away from the cutting unit to prevent serious injury.



Read the manual before adjusting engine throttle lever.



DANGER

1. Keep a safe distance from the machine. Keep bystanders away.
2. Properly dispose of components from this machine. Refer to local regulations for waste disposal and recycling.

3. Refer to the manual for maintenance and service procedures.

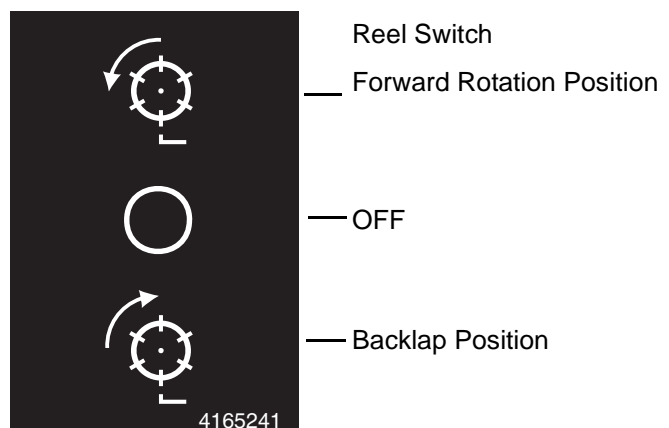
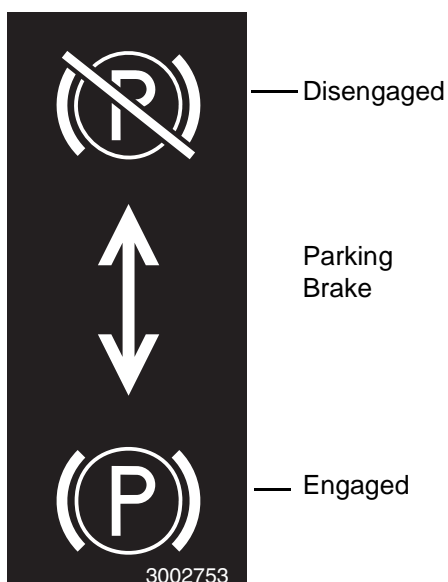
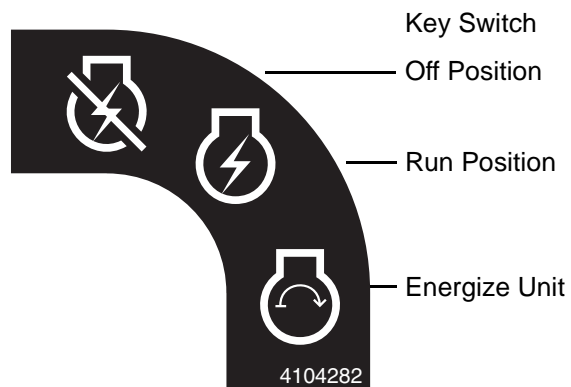
4. Do not spray water at electrical connectors, motors or controllers. Remove battery pack before pressure washing unit.


2 SPECIFICATIONS

Familiarize yourself with the following decals. They are critical to the safe operation of the mower. REPLACE DAMAGED DECALS IMMEDIATELY.

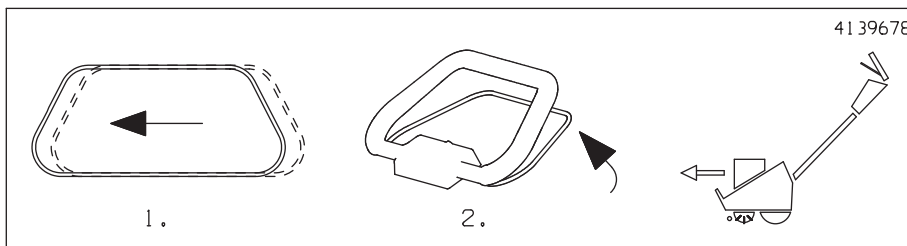


Read the manual before adjusting front roller weight.



|  | |
|---|-------------------|
| 063300 = 92.3 Kg | 063311 = 113.0 Kg |
| 063301 = 110.4 Kg | 063312 = 123.5 Kg |
| 063302 = 101.6 Kg | 063313 = 101.3 Kg |
| 063303 = 109.3 Kg | 063314 = 119.5 Kg |
| 063304 = 105.8 Kg | 063315 = 114.9 Kg |

Mower Weight

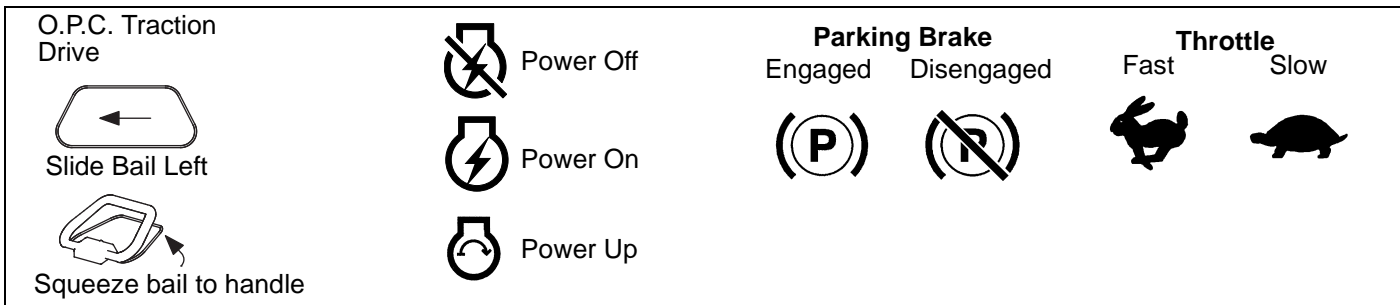


To Engage Traction.

1. Slide bail to the left.
2. Squeeze bail to handle.

3 CONTROLS

3.1 ICONS



WARNING

Never attempt to operate the machine unless you have read the Safety and Operation Manual, the Parts and Maintenance Manual and know how to operate all controls correctly.

Familiarize yourself with the icons shown above and what they represent. Learn the location and purpose of all the controls before operating this mower.

3.2 HANDLE CONTROLS

- A. Parking Brake** – Used whenever the mower is left unattended or as a service brake while transporting. Always use transport tires when transporting up or down hills.

WARNING

To prevent injury, always use transport tires when transporting unit up or down hills.

- B. Speed Paddle** – Sets maximum traction drive speed when O.P.C. Bail is engaged. Push (+) side of lever to increase speed. Push (-) side of lever to decrease speed.
- C. O.P.C. Bail** – Slide bail slightly to the left and squeeze bail to start traction motor. Traction motor speed is increased as the bail moves towards the handle. Release bail to stop unit.
- D. Key Switch** - The power switch turns the power on and off. It has three positions OFF, RUN, and START. Key switch must be in RUN position to start units equipped with Gen-Set power module.
- E. Reel Switch** - The reel switch is used to start and stop the reel and to enable backlap.
- F. Circuit Breaker** - Used to protect controllers. Push button in when tripped.
- G. LCD Display** - Used to display operating conditions.

- H. LCD Controls** - Used to navigate through menus.

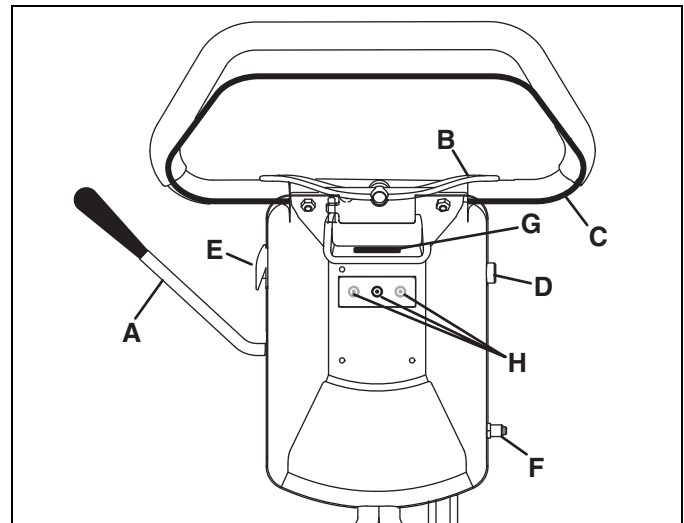


Figure 3A

DANGER

Keep hands and feet away from the cutting unit to prevent serious injury.

3.3 LCD DISPLAY

The LCD displays current functional values for the operation of the Eclipse mower and sounds one of three types of audible alerts. The LCD operates in one of two modes, Operator Mode (Default), and Maintenance Mode. Use of Maintenance mode requires a four digit pin number.

Press either of the orange buttons (**K** or **L**) to change screen display or change values. Push the right orange button (**K**) to go forward in the display list or increase setting value, and push the left orange button (**L**) to go back in the display list or decrease setting value. The black button (**J**) is used to select, reset, or change values.

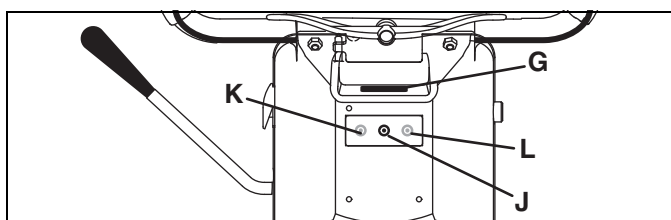


Figure 3B

Audible Alerts indicate one of three conditions detected by the LCD Display and a corresponding message would show on the display. A solid tone indicates low system voltage. A fast beeping (2 per second) alert indicates an over voltage condition. A slow beeping (1 every 3 seconds) alert indicates mower is in backlap mode.

Alert Displays: In addition to the standard displays for each mode, there are four displays that are used to alert the operator/mechanic of a problem the needs to be corrected.

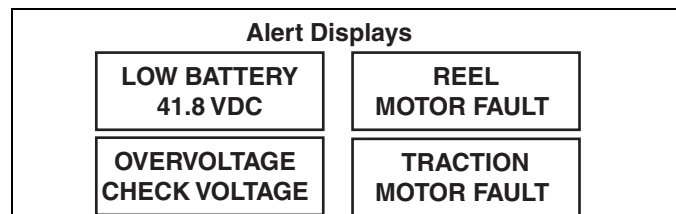


Figure 3C

Low Voltage display is shown when system voltage drops below 42 Volts DC for 30 seconds and an solid tone alarm will sound. Press the black button (**J**) to silence the alarm. Return mower to storage area or install a fully charged battery pack. Reel motor will not operate with low voltage on the display.

Overvoltage/Check Voltage display is shown when system voltage is above 60 Volts DC and a fast (2 per second) beeping alarm will sound. If not corrected, controller will shut down after 60 seconds. Check generator output before restarting system. [See Section 9.3].

Reel Motor Fault display is shown when a reel motor short circuit is detected or the reel motor current draw exceeds 30 Amps for one second. Reel motor will not operate until the problem is resolved. Return mower to maintenance area for repair.



WARNING

Turn reel switch off, release bail, turn key to off position, and disconnect battery connector before checking for obstructions in reel.

Traction Motor Fault display is shown when a traction motor short circuit is detected or the traction motor current draw exceeds 30 Amps for one second. Traction motor will not operate until the problem is resolved. Return mower to maintenance area for repair.

Operator Mode is used by the operator for system voltage information, travel speed, FOC setting, and reel speed. Press the orange buttons (**K** and **L**) on the front handle cover to toggle between the different displays. Operator Mode is view only, no system settings can be changed.

If reel switch is placed into backlap position while in operator mode, the reel motor will stop immediately, and screen will display "Turn Backlap Switch Off". Backlap is only available in Superintendent Mode.

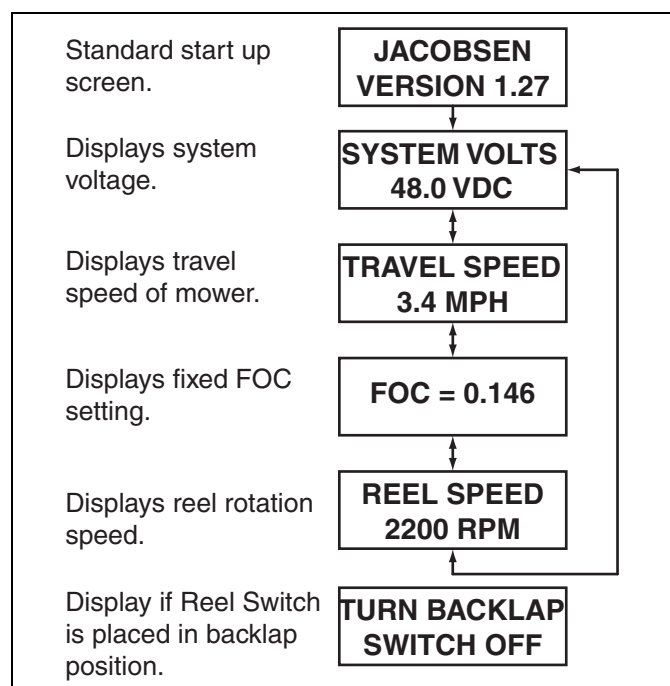


Figure 3D

3 CONTROLS

Maintenance Mode is used by the maintenance to set and adjust all functional values for the Eclipse Mower. LCD displays available in Maintenance Mode are, factory reset, system voltage, travel speed, reel speed, total hours on machine, traction motor current draw, reel motor current draw, total motor current draw, set mow speed, set power source, maintenance hours, set reel speed, set display units, calibrate speed paddle, and calibrate bail lever.

To enter Maintenance Mode, press both orange buttons (**K** and **L**) when Jacobsen Version X.XX is on the display. Use the orange buttons (**K** or **L**) to select and the black button (**J**) to enter the digits for the Mechanic Mode pin.

NOTE: The PIN for Maintenance Mode is **6789**.

NOTE: The Maintenance Mode PIN can be customized to a setting of your choice. Please contact your Jacobsen Dealer or Jacobsen Technical Support (1800-848-1636 Option 2) for complete instructions.

For backlap screens, see **Section 10.4**

Factory Reset: To reset controller to factory default values, press either of the orange buttons (**K** or **L**) on the front cover until the Factory Reset screen is on the LCD display. Press the black button (**J**) to reset values back to factory default settings

Maximum Mow Speed 3.4 Mph (5.5 kph)
Reel Speed 2200 rpm
Fixed FOC Setting 0.146
Display units..... English

Fixed FOC Setting: To set the fixed FOC, press either of the orange buttons (**K** or **L**) on the front cover until the FOC x.xxx CHANGE? screen is on the LCD display. Press the black button (**J**) to enter set mode. Use the orange buttons to raise (**K**) or lower (**L**) the FOC value to the desired setting. press the black button to set speed. Fixed FOC setting must be 0 or between 0.087 and 0.178 in. (2.2 and 4.5 mm). [See Section 3.4].

Maximum Mow Speed: To set the maximum mow speed, press either of the orange buttons (**K** or **L**) on the front cover until the set max mow speed screen is on the LCD display. Press the black button (**J**) to enter set mode. Use the orange buttons to raise (**K**) or lower (**L**) the maximum mow speed to the desired speed. press the black button to set speed.

Maximum mow speed must be between 2.0 and 3.4 MPH (3.2 and 5.5 kph).

Fixed Reel Speed: To set the fixed reel speed, the FOC setting must be set to 0, then press either of the orange buttons (**K** or **L**) on the front cover until the set reel speed screen is on the LCD display. Press the black button (**J**) to enter set mode. Use the orange buttons to raise (**K**) or lower (**L**) the reel speed to the desired setting.

Fixed reel speed must be set between 1800 and 2200 rpm.

The Maximum Mow Speed and the Fixed Reel Speed are used to determine the FOC (Frequency of Cut) [See Section 3.4].

Power Source: To set power source, press either of the orange buttons (**K** or **L**) on the front cover until the Power Source screen is on the LCD display. Press the black button (**J**) to change power source.

Select either Genset Power or Battery Power.

Maintenance Hours: To reset maintenance hours, press either of the orange buttons (**K** or **L**) on the front cover until the maintenance hours screen is on the LCD display. Press the black button (**J**) to reset maintenance hours to zero. The system can track a maximum of 999.9 hours.

Motor Type Select: Select the part number for the reel and traction motors used on your equipment. The two motors have different control voltage to output RPM characteristics. The eclipse mower uses motor part no. 4160533 or 4205222. Do not select 4153940.

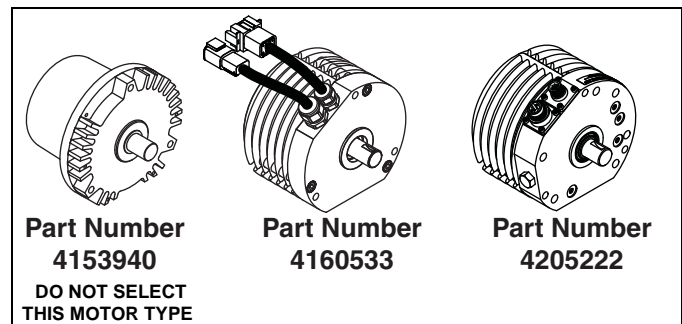


Figure 3E

Display Units: To set the display units, press either of the orange buttons (**K** or **L**) on the front cover until the units screen is on the LCD display. Press the black button (**J**) to enter set mode. Use the orange buttons to select the desired setting.

Units must be set to English or metric.

Calibrate Speed Paddle: Before calibrating the speed paddle, check that paddle stops are properly adjusted [See Section 5.3]. To calibrate the paddle, press either of the orange buttons (**K** or **L**) on the front cover until the thumb lever screen is on the LCD display. Press the black button (**J**) to enter set mode. Move the throttle paddle through its entire range of movement to determine minimum and maximum values.

Values displayed will change as controls are moved.

Calibrate Bail Lever: To calibrate the bail lever, press either of the orange buttons (**K** or **L**) on the front cover until the bail lever screen is on the LCD display. Press the black button (**J**) to enter set mode. Fully engage and disengage the bail lever to determine minimum and maximum values.

Values displayed will change as controls are moved.

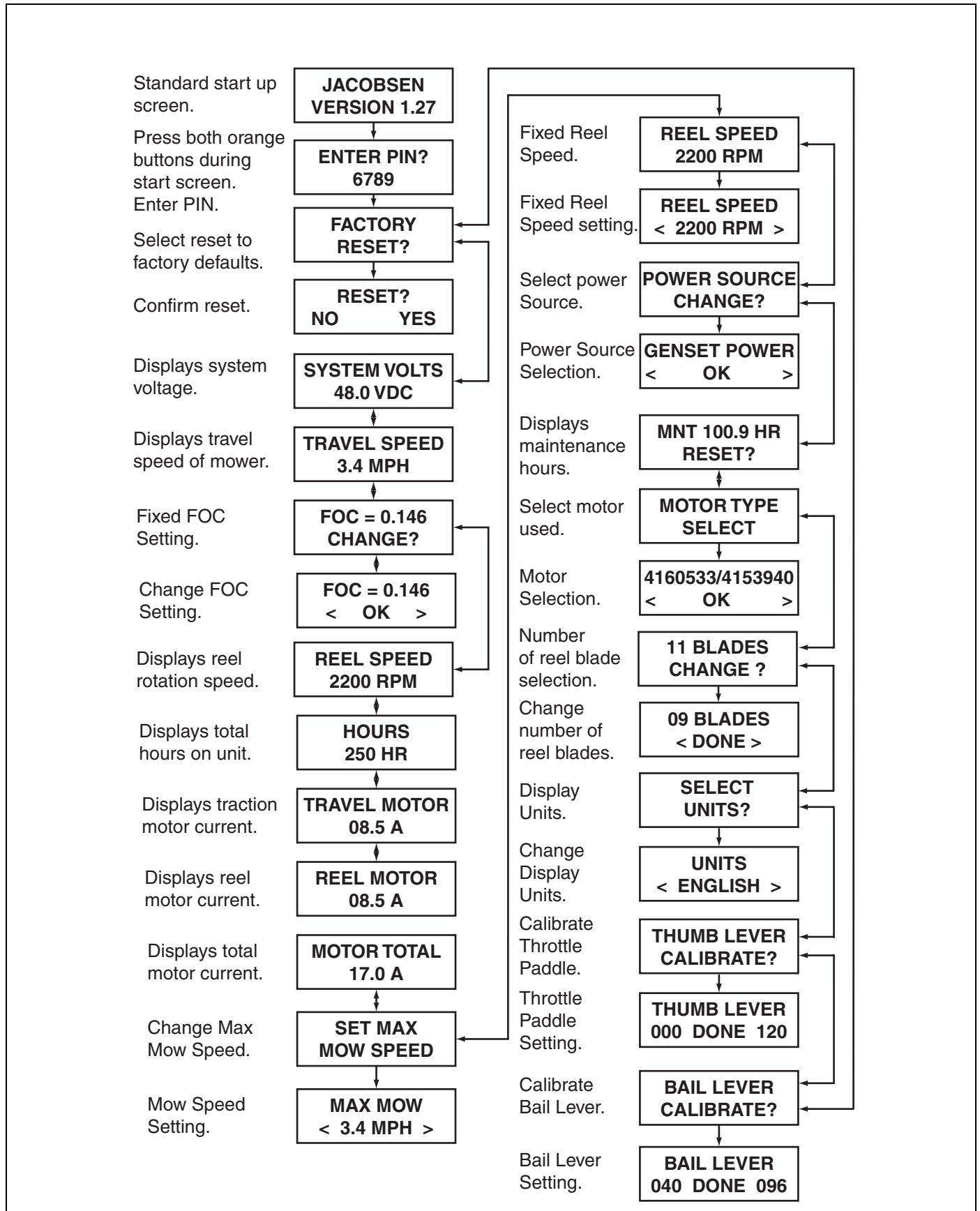


Figure 3F

3 CONTROLS

3.4 FREQUENCY OF CUT

The FOC (Frequency of cut) is the distance, in inches (mm), the machine travels forward between reel blades contacting the bedknife. The FOC can be adjusted either by changing the Fixed FOC setting or by changing the maximum mow speed and the fixed reel speed on the LCD display.

Adjust FOC with Fixed FOC setting

Changing the FOC setting to a value other than 0 will enable the fixed FOC mode and disable the reel speed setting. As mower travel speed increases or decreases, reel speed will automatically adjust as required to maintain set FOC.

Adjust FOC with Reel Speed Setting

1. Using the FOC charts, determine the maximum mow speed and fixed reel speed required for the desired FOC.
2. Start the unit in Superintendant mode. **[Section 3.3]**
3. Set fixed FOC setting to 0
4. Set desired Maximum Mow Speed
5. Set desired Fixed Reel Speed

NOTE: Mow speed is measured in mph (kph), FOC is measured in inches (millimeters).

15 Blade Reel FOC Table, Product No 63325, 63326, 63327, 63328, 63329, 63330, 63331, 63332 (Standard Reel)

| Mow Speed | Reel RPM | | | | | | | | |
|------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 1800 | 1850 | 1900 | 1950 | 2000 | 2050 | 2100 | 2150 | 2200 |
| 2.00 (3.22) | 0.078 (1.987) | 0.076 (1.933) | 0.074 (1.882) | 0.072 (1.834) | 0.070 (1.788) | 0.069 (1.745) | 0.067 (1.703) | 0.065 (1.663) | 0.064 (1.626) |
| 2.10 (3.38) | 0.082 (2.086) | 0.080 (2.030) | 0.078 (1.976) | 0.076 (1.926) | 0.074 (1.878) | 0.072 (1.832) | 0.070 (1.788) | 0.069 (1.747) | 0.067 (1.707) |
| 2.20 (3.54) | 0.086 (2.186) | 0.084 (2.126) | 0.082 (2.071) | 0.079 (2.017) | 0.077 (1.967) | 0.076 (1.919) | 0.074 (1.873) | 0.072 (1.830) | 0.070 (1.788) |
| 2.30 (3.70) | 0.090 (2.285) | 0.088 (2.223) | 0.085 (2.165) | 0.083 (2.109) | 0.081 (2.056) | 0.079 (2.006) | 0.077 (1.958) | 0.075 (1.913) | 0.074 (1.869) |
| 2.40 (3.86) | 0.094 (2.384) | 0.091 (2.320) | 0.089 (2.259) | 0.087 (2.201) | 0.084 (2.146) | 0.082 (2.093) | 0.080 (2.044) | 0.079 (1.996) | 0.077 (1.951) |
| 2.50 (4.02) | 0.098 (2.484) | 0.095 (2.416) | 0.093 (2.353) | 0.090 (2.293) | 0.088 (2.235) | 0.086 (2.181) | 0.084 (2.129) | 0.082 (2.079) | 0.080 (2.032) |
| 2.60 (4.18) | 0.102 (2.583) | 0.099 (2.513) | 0.096 (2.447) | 0.094 (2.384) | 0.092 (2.325) | 0.089 (2.268) | 0.087 (2.214) | 0.085 (2.162) | 0.083 (2.113) |
| 2.70 (4.35) | 0.106 (2.682) | 0.103 (2.610) | 0.100 (2.541) | 0.097 (2.476) | 0.095 (2.414) | 0.093 (2.355) | 0.091 (2.299) | 0.088 (2.246) | 0.086 (2.195) |
| 2.80 (4.51) | 0.110 (2.782) | 0.107 (2.706) | 0.104 (2.635) | 0.101 (2.568) | 0.099 (2.503) | 0.096 (2.442) | 0.094 (2.384) | 0.092 (2.329) | 0.090 (2.276) |
| 2.90 (4.67) | 0.113 (2.881) | 0.110 (2.803) | 0.107 (2.729) | 0.105 (2.659) | 0.102 (2.593) | 0.100 (2.530) | 0.097 (2.469) | 0.095 (2.412) | 0.093 (2.357) |
| 3.00 (4.83) | 0.117 (2.980) | 0.114 (2.900) | 0.111 (2.823) | 0.108 (2.751) | 0.106 (2.682) | 0.103 (2.617) | 0.101 (2.555) | 0.098 (2.495) | 0.096 (2.438) |
| 3.10 (4.99) | 0.121 (3.080) | 0.118 (2.996) | 0.115 (2.918) | 0.112 (2.843) | 0.109 (2.772) | 0.106 (2.704) | 0.104 (2.640) | 0.102 (2.578) | 0.099 (2.520) |
| 3.20 (5.15) | 0.125 (3.179) | 0.122 (3.093) | 0.119 (3.012) | 0.116 (2.934) | 0.113 (2.861) | 0.110 (2.791) | 0.107 (2.725) | 0.105 (2.661) | 0.102 (2.601) |
| 3.30 (5.31) | 0.129 (3.278) | 0.126 (3.190) | 0.122 (3.106) | 0.119 (3.026) | 0.116 (2.950) | 0.113 (2.879) | 0.111 (2.810) | 0.108 (2.745) | 0.106 (2.682) |
| 3.40 (5.47) | 0.133 (3.378) | 0.129 (3.286) | 0.126 (3.200) | 0.123 (3.118) | 0.120 (3.040) | 0.117 (2.966) | 0.114 (2.895) | 0.111 (2.828) | 0.109 (2.764) |

11 Blade Reel FOC Table, Product No. 63300, 63301, 63302, 63303, 63311, 63312, 63313, 63314 (Standard Reel)

| Mow Speed | Reel RPM | | | | | | | | |
|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 1800 | 1850 | 1900 | 1950 | 2000 | 2050 | 2100 | 2150 | 2200 |
| 2.0 (3.22) | 0.107 (2.709) | 0.104 (2.636) | 0.101 (2.567) | 0.098 (2.501) | 0.096 (2.438) | 0.094 (2.379) | 0.091 (2.322) | 0.089 (2.268) | 0.087 (2.217) |
| 2.1 (3.38) | 0.112 (2.845) | 0.109 (2.768) | 0.106 (2.695) | 0.103 (2.626) | 0.101 (2.56) | 0.098 (2.498) | 0.096 (2.438) | 0.094 (2.382) | 0.092 (2.328) |
| 2.2 (3.54) | 0.117 (2.98) | 0.114 (2.9) | 0.111 (2.823) | 0.108 (2.751) | 0.106 (2.682) | 0.103 (2.617) | 0.101 (2.555) | 0.098 (2.495) | 0.096 (2.438) |
| 2.3 (3.7) | 0.123 (3.116) | 0.119 (3.032) | 0.116 (2.952) | 0.113 (2.876) | 0.110 (2.804) | 0.108 (2.736) | 0.105 (2.671) | 0.103 (2.609) | 0.100 (2.549) |
| 2.4 (3.86) | 0.128 (3.251) | 0.125 (3.163) | 0.121 (3.08) | 0.118 (3.001) | 0.115 (2.926) | 0.112 (2.855) | 0.110 (2.787) | 0.107 (2.722) | 0.105 (2.66) |
| 2.5 (4.02) | 0.133 (3.387) | 0.130 (3.295) | 0.126 (3.208) | 0.123 (3.126) | 0.120 (3.048) | 0.117 (2.974) | 0.114 (2.903) | 0.112 (2.835) | 0.109 (2.771) |
| 2.6 (4.18) | 0.139 (3.522) | 0.135 (3.427) | 0.131 (3.337) | 0.128 (3.251) | 0.125 (3.17) | 0.122 (3.093) | 0.119 (3.019) | 0.116 (2.949) | 0.113 (2.882) |
| 2.7 (4.35) | 0.144 (3.658) | 0.140 (3.559) | 0.136 (3.465) | 0.133 (3.376) | 0.130 (3.292) | 0.126 (3.212) | 0.123 (3.135) | 0.121 (3.062) | 0.118 (2.993) |
| 2.8 (4.51) | 0.149 (3.793) | 0.145 (3.691) | 0.141 (3.593) | 0.138 (3.501) | 0.134 (3.414) | 0.131 (3.33) | 0.128 (3.251) | 0.125 (3.176) | 0.122 (3.103) |
| 2.9 (4.67) | 0.155 (3.929) | 0.150 (3.822) | 0.147 (3.722) | 0.143 (3.626) | 0.139 (3.536) | 0.136 (3.449) | 0.133 (3.367) | 0.129 (3.289) | 0.127 (3.214) |
| 3.0 (4.83) | 0.160 (4.064) | 0.156 (3.954) | 0.152 (3.85) | 0.148 (3.751) | 0.144 (3.658) | 0.140 (3.568) | 0.137 (3.483) | 0.134 (3.402) | 0.131 (3.325) |
| 3.1 (4.99) | 0.165 (4.199) | 0.161 (4.086) | 0.157 (3.978) | 0.153 (3.876) | 0.149 (3.78) | 0.145 (3.687) | 0.142 (3.6) | 0.138 (3.516) | 0.135 (3.436) |
| 3.2 (5.15) | 0.171 (4.335) | 0.166 (4.218) | 0.162 (4.107) | 0.158 (4.001) | 0.154 (3.901) | 0.150 (3.806) | 0.146 (3.716) | 0.143 (3.629) | 0.140 (3.547) |
| 3.3 (5.31) | 0.176 (4.47) | 0.171 (4.35) | 0.167 (4.235) | 0.162 (4.127) | 0.158 (4.023) | 0.155 (3.925) | 0.151 (3.832) | 0.147 (3.743) | 0.144 (3.658) |
| 3.4 (5.47) | 0.181 (4.606) | 0.176 (4.481) | 0.172 (4.363) | 0.167 (4.252) | 0.163 (4.145) | 0.159 (4.044) | 0.155 (3.948) | 0.152 (3.856) | 0.148 (3.768) |

3 CONTROLS

9 Blade Reel FOC Table, Product No. 63303, 63312 (Optional Reel)

| Mow Speed | Reel RPM | | | | | | | | |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 1800 | 1850 | 1900 | 1950 | 2000 | 2050 | 2100 | 2150 | 2200 |
| 2.0 (3.22) | 0.130 (3.311) | 0.127 (3.222) | 0.124 (3.137) | 0.120 (3.057) | 0.117 (2.98) | 0.114 (2.908) | 0.112 (2.838) | 0.109 (2.772) | 0.107 (2.709) |
| 2.1 (3.38) | 0.137 (3.477) | 0.133 (3.383) | 0.130 (3.294) | 0.126 (3.21) | 0.123 (3.129) | 0.120 (3.053) | 0.117 (2.98) | 0.115 (2.911) | 0.112 (2.845) |
| 2.2 (3.54) | 0.143 (3.643) | 0.140 (3.544) | 0.136 (3.451) | 0.132 (3.362) | 0.129 (3.278) | 0.126 (3.198) | 0.123 (3.122) | 0.120 (3.05) | 0.117 (2.98) |
| 2.3 (3.7) | 0.150 (3.808) | 0.146 (3.705) | 0.142 (3.608) | 0.138 (3.515) | 0.135 (3.427) | 0.132 (3.344) | 0.129 (3.264) | 0.126 (3.188) | 0.123 (3.116) |
| 2.4 (3.86) | 0.156 (3.974) | 0.152 (3.866) | 0.148 (3.765) | 0.144 (3.668) | 0.141 (3.576) | 0.137 (3.489) | 0.134 (3.406) | 0.131 (3.327) | 0.128 (3.251) |
| 2.5 (4.02) | 0.163 (4.139) | 0.159 (4.027) | 0.154 (3.921) | 0.150 (3.821) | 0.147 (3.725) | 0.143 (3.634) | 0.140 (3.548) | 0.136 (3.465) | 0.133 (3.387) |
| 2.6 (4.18) | 0.169 (4.305) | 0.165 (4.188) | 0.161 (4.078) | 0.156 (3.974) | 0.153 (3.874) | 0.149 (3.78) | 0.145 (3.69) | 0.142 (3.604) | 0.139 (3.522) |
| 2.7 (4.35) | 0.176 (4.47) | 0.171 (4.35) | 0.167 (4.235) | 0.162 (4.127) | 0.158 (4.023) | 0.155 (3.925) | 0.151 (3.832) | 0.147 (3.743) | 0.144 (3.658) |
| 2.8 (4.51) | 0.183 (4.636) | 0.178 (4.511) | 0.173 (4.392) | 0.168 (4.279) | 0.164 (4.172) | 0.160 (4.071) | 0.156 (3.974) | 0.153 (3.881) | 0.149 (3.793) |
| 2.9 (4.67) | 0.189 (4.802) | 0.184 (4.672) | 0.179 (4.549) | 0.174 (4.432) | 0.170 (4.321) | 0.166 (4.216) | 0.162 (4.116) | 0.158 (4.02) | 0.155 (3.929) |
| 3.0 (4.83) | 0.196 (4.967) | 0.190 (4.833) | 0.185 (4.706) | 0.181 (4.585) | 0.176 (4.47) | 0.172 (4.361) | 0.168 (4.258) | 0.164 (4.159) | 0.160 (4.064) |
| 3.1 (4.99) | 0.202 (5.133) | 0.197 (4.994) | 0.191 (4.863) | 0.187 (4.738) | 0.182 (4.619) | 0.177 (4.507) | 0.173 (4.399) | 0.169 (4.297) | 0.165 (4.199) |
| 3.2 (5.15) | 0.209 (5.298) | 0.203 (5.155) | 0.198 (5.019) | 0.193 (4.891) | 0.188 (4.768) | 0.183 (4.652) | 0.179 (4.541) | 0.175 (4.436) | 0.171 (4.335) |
| 3.3 (5.31) | 0.215 (5.464) | 0.209 (5.316) | 0.204 (5.176) | 0.199 (5.044) | 0.194 (4.917) | 0.189 (4.798) | 0.184 (4.683) | 0.180 (4.574) | 0.176 (4.47) |
| 3.4 (5.47) | 0.222 (5.629) | 0.216 (5.477) | 0.210 (5.333) | 0.205 (5.196) | 0.199 (5.066) | 0.195 (4.943) | 0.190 (4.825) | 0.186 (4.713) | 0.181 (4.606) |

7 Blade Reel FOC Table, Product No. 63304, 63315 (Standard Reel) and 63303, 63312 (Optional Reel)

| Mow Speed | Reel RPM | | | | | | | | |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 1800 | 1850 | 1900 | 1950 | 2000 | 2050 | 2100 | 2150 | 2200 |
| 2.0 (3.22) | 0.168 (4.258) | 0.163 (4.142) | 0.159 (4.033) | 0.155 (3.93) | 0.151 (3.832) | 0.147 (3.738) | 0.144 (3.649) | 0.140 (3.564) | 0.137 (3.483) |
| 2.1 (3.38) | 0.176 (4.47) | 0.171 (4.35) | 0.167 (4.235) | 0.162 (4.127) | 0.158 (4.023) | 0.155 (3.925) | 0.151 (3.832) | 0.147 (3.743) | 0.144 (3.658) |
| 2.2 (3.54) | 0.184 (4.683) | 0.179 (4.557) | 0.175 (4.437) | 0.170 (4.323) | 0.166 (4.215) | 0.162 (4.112) | 0.158 (4.014) | 0.154 (3.921) | 0.151 (3.832) |
| 2.3 (3.7) | 0.193 (4.896) | 0.188 (4.764) | 0.183 (4.638) | 0.178 (4.52) | 0.173 (4.407) | 0.169 (4.299) | 0.165 (4.197) | 0.161 (4.099) | 0.158 (4.006) |
| 2.4 (3.86) | 0.201 (5.109) | 0.196 (4.971) | 0.191 (4.84) | 0.186 (4.716) | 0.181 (4.598) | 0.177 (4.486) | 0.172 (4.379) | 0.168 (4.277) | 0.165 (4.18) |
| 2.5 (4.02) | 0.210 (5.322) | 0.204 (5.178) | 0.198 (5.042) | 0.193 (4.913) | 0.189 (4.79) | 0.184 (4.673) | 0.180 (4.562) | 0.175 (4.456) | 0.171 (4.354) |
| 2.6 (4.18) | 0.218 (5.535) | 0.212 (5.385) | 0.206 (5.243) | 0.201 (5.109) | 0.196 (4.981) | 0.191 (4.86) | 0.187 (4.744) | 0.182 (4.634) | 0.178 (4.528) |
| 2.7 (4.35) | 0.226 (5.748) | 0.220 (5.592) | 0.214 (5.445) | 0.209 (5.306) | 0.204 (5.173) | 0.199 (5.047) | 0.194 (4.927) | 0.189 (4.812) | 0.185 (4.703) |
| 2.8 (4.51) | 0.235 (5.961) | 0.228 (5.799) | 0.222 (5.647) | 0.217 (5.502) | 0.211 (5.364) | 0.206 (5.234) | 0.201 (5.109) | 0.196 (4.99) | 0.192 (4.877) |
| 2.9 (4.67) | 0.243 (6.173) | 0.236 (6.007) | 0.230 (5.848) | 0.224 (5.699) | 0.219 (5.556) | 0.213 (5.421) | 0.208 (5.291) | 0.203 (5.168) | 0.199 (5.051) |
| 3.0 (4.83) | 0.251 (6.386) | 0.245 (6.214) | 0.238 (6.05) | 0.232 (5.895) | 0.226 (5.748) | 0.221 (5.607) | 0.216 (5.474) | 0.210 (5.347) | 0.206 (5.225) |
| 3.1 (4.99) | 0.260 (6.599) | 0.253 (6.421) | 0.246 (6.252) | 0.240 (6.092) | 0.234 (5.939) | 0.228 (5.794) | 0.223 (5.656) | 0.218 (5.525) | 0.213 (5.399) |
| 3.2 (5.15) | 0.268 (6.812) | 0.261 (6.628) | 0.254 (6.454) | 0.248 (6.288) | 0.241 (6.131) | 0.235 (5.981) | 0.230 (5.839) | 0.225 (5.703) | 0.219 (5.573) |
| 3.3 (5.31) | 0.277 (7.025) | 0.269 (6.835) | 0.262 (6.655) | 0.255 (6.485) | 0.249 (6.322) | 0.243 (6.168) | 0.237 (6.021) | 0.232 (5.881) | 0.226 (5.748) |
| 3.4 (5.47) | 0.285 (7.238) | 0.277 (7.042) | 0.270 (6.857) | 0.263 (6.681) | 0.256 (6.514) | 0.250 (6.355) | 0.244 (6.204) | 0.239 (6.06) | 0.233 (5.922) |

3 CONTROLS

3.5 GAS POWER MODULE CONTROLS

- M. Engine Switch** – The engine switch enables and disables the engine ignition system. The engine switch must be in the ON position for the engine to run. Turning the engine switch to the OFF position stops the engine.
- N. Choke Lever** - The choke lever opens and closes the choke valve in the carburetor. The CLOSED position enriches the fuel mixture for starting a cold engine. The OPEN position provides the correct fuel mixture for operation after starting, and for restarting a warm engine.
- P. Fuel Valve Lever** - The fuel valve opens and closes the connection between the fuel tank and the carburetor. The fuel valve lever must be in the ON position for the engine to run. When the engine is not in use, leave the fuel valve lever in the OFF position to prevent carburetor flooding, and to reduce the possibility of fuel leakage.

NOTICE

Before tipping mower back for adjustments, the fuel lever must be moved to the OFF position to prevent fuel from leaking into the crankcase.

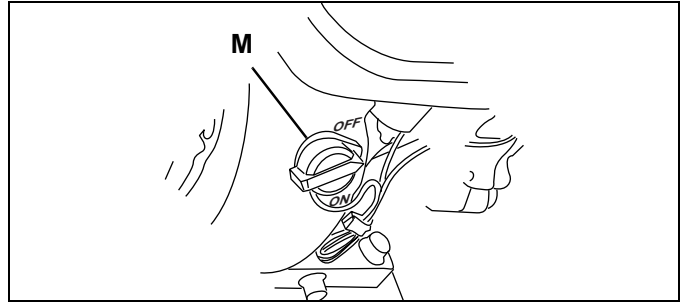


Figure 3G

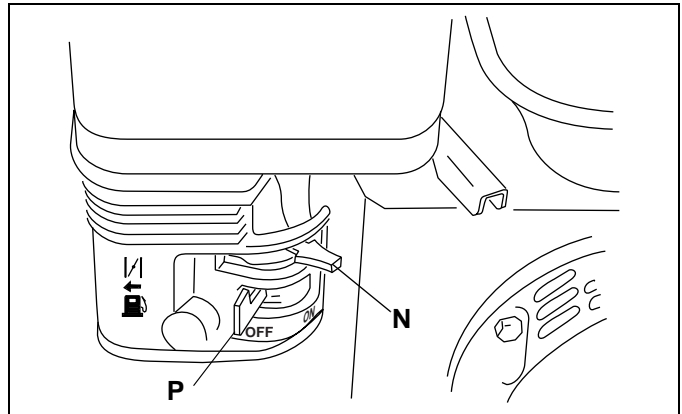


Figure 3H

3.6 BATTERY POWER MODULE CONTROLS

- R. Battery Monitor** - Located on the removable battery pack displays battery charge level.

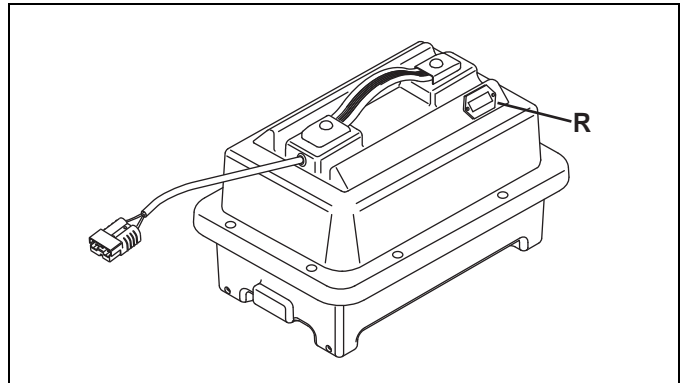


Figure 3I

4.1 DAILY INSPECTION



CAUTION

The daily inspection should be performed only with the parking brake engaged, and power connector disconnected.

1. Perform a visual inspection of the entire unit, look for signs of wear, loose hardware, missing or damaged components.
2. Make sure the mower is adjusted to the required cutting height.
3. Make sure the machine is lubricated and the transport tires are properly inflated.
4. Check the O.P.C. system.
5. Check motor connections are tight. **Hand tighten motor connections only, do not use wrenches to tighten motor connection.**

4.2 INTERLOCK SYSTEM (O.P.C.)

1. The Interlock System is intended to protect the operator and others from injury by stopping the reel and drive mechanism as soon as the operator releases the O.P.C. (Operator Presence Control) bail.



WARNING

Never operate equipment with the Interlock System disconnected or malfunctioning. Do not disconnect or bypass any switch.

2. To test the system:
 - a. Place mower on the kickstand.
 - b. Make certain reel switch is off.
3. **Gen-Set Power Module:** Start the engine.
4. Energize the unit.
 - a. Slide bail to the left and engage O.P.C. Bail.
 - b. The drive motor and the wheels will begin to turn.
 - c. Release the O.P.C. bail. The bail must disengage, and drive motor must stop.
5. If the drive motor engages before the O.P.C. bail is engaged or the drive motor continue to turn after the O.P.C. bail is released; stop the unit immediately and have the system repaired.

4 OPERATION

4.3 OPERATING PROCEDURES



CAUTION

To help prevent injury, always wear safety glasses, leather work shoes or boots, a hard hat, and ear protection.

1. Under no circumstances should the unit be started with operator or bystanders standing in front of the reel.
2. Never run the engine in an enclosed area.
3. Keep hands and feet away from moving parts and cutting units. If possible, do not make adjustments with the engine running.
4. Do not operate mower or attachments with loose, damaged, or missing components. Whenever possible mow when grass is dry.
5. First mow in a test area to become thoroughly familiar with the operation of the mower and control levers.
9. Disengage the reel switch to stop blades when not mowing.
10. Disengage the reel switch when crossing paths or roadways. Look out for traffic.
11. Stop and inspect the equipment for damage immediately after striking an obstruction, or if the machine begins to vibrate abnormally. Have the equipment repaired before resuming operation.

NOTICE

To prevent damage to the reel and bedknife **never** operate the reels when they are not cutting grass. Excessive friction and heat will develop between the bedknife and reel and damage the cutting edge.

6. Study the area to determine the best and safest operating procedure. Consider the height of the grass, type of terrain, and condition of the surface. Each condition will require certain adjustments or precautions. Only use accessories and attachments approved by Jacobsen.
7. Be aware of mower discharge direction and never direct discharge of material toward bystanders. Never allow anyone near the machine while in operation. The owner/operator is responsible for injuries inflicted to bystanders and/or damage to their property.



CAUTION

Before mowing, pick up all debris such as rocks, toys, and wire which can be thrown by the machine. Enter a new area cautiously. Always operate at speeds that allow you to have complete control of the mower.

8. Use discretion when mowing near gravel areas (roadway, parking areas, cart paths, etc.). Stones discharged from the mower may cause serious injuries to bystanders and/or damage the equipment.



WARNING

Before you clean, adjust, or repair this equipment, always disengage all drives, engage parking brake, turf key switch OFF, and disconnect power connector to prevent injuries.

12. Slow down and use extra care on hillsides. Use caution when operating near drop offs.
13. Look behind and down before backing up to be sure of a clear path. Use care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.
14. Never use your hands to clean cutting units. Use a brush to remove grass clippings from blades. Blades are extremely sharp and can cause serious injuries.

4.4 STARTING/STOPPING

1. Prepare power module to energize unit.

Battery Power Module: Disconnect battery charger and connect power connector.

Gen-Set Power Module:

- a. Check oil level and fuel supply then open fuel valve lever **(P)**.
 - b. Move the choke lever **(N)** to the CLOSED position.
 - c. Set engine switch **(M)** to ON and power switch **(D)** to RUN position.
 - d. Start the engine.
 - e. Once engine starts move choke lever **(N)** to the OPEN position.
2. Make certain O.P.C. bail **(C)** is disengaged, reel switch **(E)** is off, and parking brake **(A)** is engaged.
 3. Turn power switch **(D)** to start position and release. LCD display **(G)** should show startup display for 5 seconds, then switch to system voltage.

If system fails to initialize, check to see if power connector is properly attached or if circuit breaker **(F)** is tripped. Reset circuit breaker if necessary.

4. Check system voltage on LCD display **(G)**. If the system voltage screen is not on the display, press either of the orange buttons **(H)** to forward display to the correct screen. If system voltage is low, recharge batteries or check generator output before operating.
5. To mow or transport unit, push O.P.C. bail **(C)** to the left and engage.
6. To stop the unit, release the O.P.C. bail, engage parking brake, and set power switch to OFF position.
7. **Battery Power Module:** Disconnect power connector and connect battery pack to charger.

Gen-Set Power Module: Turn engine switch **(M)** to off position and close fuel valve **(P)**.

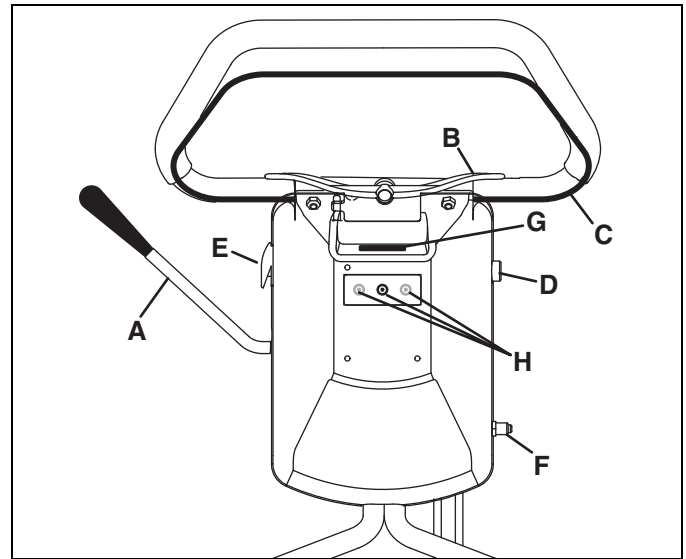


Figure 4A

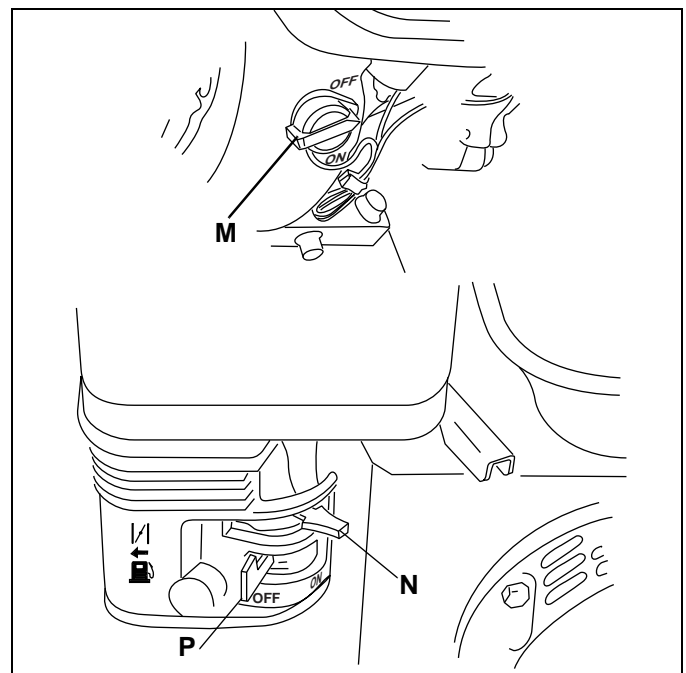


Figure 4B

4 OPERATION

4.5 MOWING



WARNING

To prevent serious injuries, keep hands, feet, and clothing away from cutting unit when the blades are moving.

NEVER use your hands to clean cutting units. Use a brush to remove grass clippings from blades. Blades can be sharp and could cause injuries.

To clear obstructions from cutting unit, disengage O.P.C. bail, engage parking brake, turn off power switch, and disconnect power connector then remove obstruction.

1. Turn power OFF. Place mower on kickstand and remove the transport wheels (If installed).
2. Engage the reel switch. Push the mower forward off kickstand. Start the unit.
3. Position mower slightly off green.
 - a. Adjust traction speed paddle **(B)** to provide a safe, comfortable walking speed.
 - b. Push handle down to lift the mower head above the grass then engage the O.P.C. bail **(C)**.
 - c. As the mower crosses the edge of the green, lower the mower head to the ground, and proceed across the green in a straight line.

When mowing lift up as required to keep handle centered in slots on handle stops. Do not push down on handle when mowing or the mower head may lift off the grass.
- d. When the opposite side of the green is reached, push down of the handle to lift the mower head without disengaging the O.P.C. bail, and proceed off the green to turn around, or simply release O.P.C. bail and turn around.
- e. To turn to the right, start by turning mower slightly to the left **(2)**. When the mower has moved approximately 1/2 its own width to the left, swing it around quickly to the right **(3 and 4)**, guiding the mower with your right hand. This method makes it possible to turn around quickly with very few steps. **[Figure 4C]**.

NOTICE

To prevent damage to the reel and bedknife **never** operate the reels when they are not cutting grass. Excessive friction and heat will develop between the bedknife and reel and damage the cutting edge.

4. To assure complete, even cutting, overlap swaths by 1 to 2 in., (25 to 50 mm), then make one or more passes around the perimeter of the green to clean ragged edges and separate the putting green surface from the apron.
5. For a more even playing surface and neater appearance, alter the mowing pattern each time a green is mowed. The patterns shown in **Figure 4D** are suggestions only, the operator or course superintendent can arrange patterns to suit each green.
6. Use caution while operating on hillside and drop-offs.

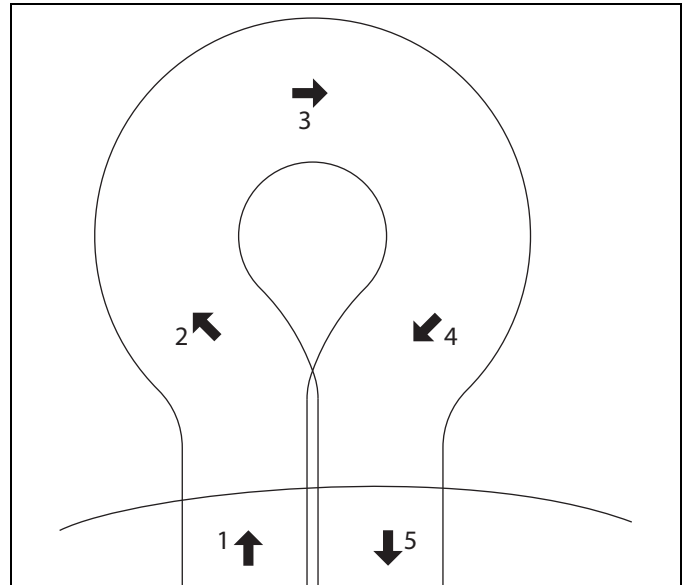


Figure 4C

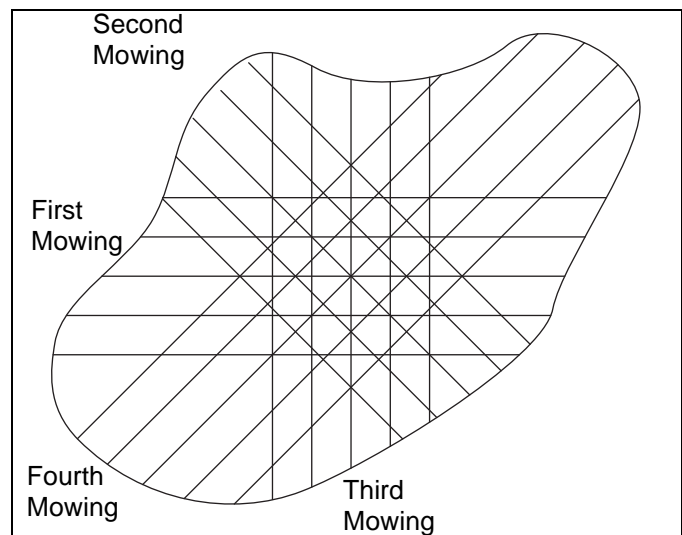


Figure 4D

4.6 TRANSPORT WHEELS (OPTIONAL)



WARNING

Always engage parking brake and disconnect power connector before installing or removing the transport wheels.

Transport wheels are an optional accessory available through your Jacobsen Dealer. Traction wheels are recommended when not using the Mower Caddy to move the mower from green to green.

1. Push and hold the kickstand against the ground then pull the mower handle, by the lift point, back until the mower rests on the stand **(S)**.
2. To remove wheels, press retaining clip **(T)** away from hub, and pull wheel off hub.
3. To install wheels, press retaining clip **(T)**, place wheel on hub, and turn the wheel backwards until studs on back of wheel line up with holes in hub **(U)**. Push wheel in and release clip.
4. Always disengage reel switch prior to transporting the mower more than a few feet.
5. Push the mower forward off the kickstand, start the unit, and engage the O.P.C. bail.
6. When using a vehicle to transport the mower, apply parking brake, turn key switch OFF, and disconnect power connector.

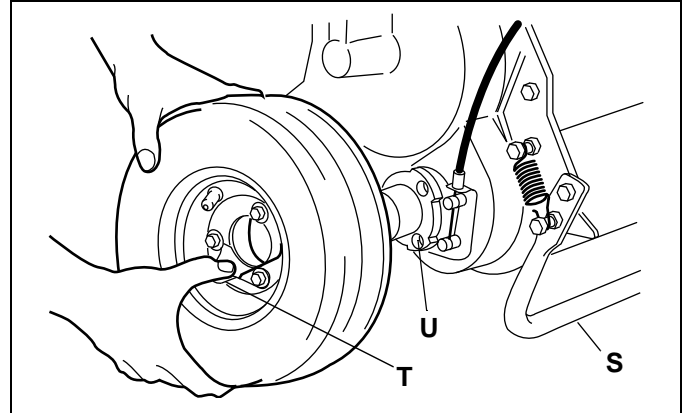


Figure 4E

4.7 GRASS CATCHER

1. When the basket is about two thirds (2/3) full of grass clippings, move the mower off the green.
2. Stop on a flat surface, disengage O.P.C. bail, engage parking bracket, turn key switch OFF, and disconnect power connector.
3. Remove and empty the grass clippings from the mower.



WARNING

To prevent serious injury, always disengage O.P.C. bail and disconnect power connector before emptying grass catcher.

4 OPERATION

4.8 DAILY MAINTENANCE

1. Park the mower on a flat, level surface. Engage parking brake, and turn key switch to off position.
2. Grease and lubricate all points if required.

NOTICE

To prevent damage to reel motor, do not over grease reel bearings. Damage of this nature is not covered by the factory warranty.

3. To prevent fires, wash the mower after each use.

NOTICE

Battery Power Modules: Disconnect battery connector and remove the battery pack from the mower before washing.

- a. Use only fresh water for cleaning your equipment.

NOTICE

Use of salt water or effluent water will encourage rust and corrosion of metal parts resulting in premature deterioration or failure. Damage of this nature is not covered by the factory warranty.

- b. Do not use high pressure spray.
- c. Do not spray water directly at electrical connectors, generator, motors, or controller
- d. Do not spray water into the cooling fins or the engine air intake.

NOTICE

Do not wash a hot or running engine. Use compressed air to clean the engine.

Battery Power Module:

4. Disconnect power connector and connect battery pack to charger.

Gen-Set Power Module:

5. Fill fuel tank at the end of each operating day. Do not fill above the fuel strainer shoulder. Close fuel valve when unit is not in use.

Use clean, fresh, unleaded gasoline, 86 octane minimum. Refer to the engine's operator manual for fuel recommendations when using blended fuel.

Handle fuel with care - it is highly flammable. Use an approved container. The spout must fit inside the fuel filler neck. Avoid using cans and funnels to transfer fuel.



WARNING

Never remove the fuel cap from the fuel tank, or add fuel, when the engine is running or while the engine is hot.

Do not smoke when handling fuel. Never fill or drain the fuel tank indoors.

Do not spill fuel and clean spilled fuel immediately.

Never handle or store fuel containers near an open flame or any device that may create sparks and ignite the fuel or fuel vapors.

Be sure to reinstall and tighten fuel cap securely.

6. Store fuel according to local, state or federal ordinances and recommendations from your fuel supplier.
- e. Check the engine oil at the start and end of each day, before starting the engine. If the oil level is low, remove the oil filler cap and add oil as required. Do not overfill.

5.1 GENERAL

WARNING

Before you adjust, clean, or repair this equipment, always disengage all drives, engage parking brake, turn key switch OFF, and disconnect power connector to prevent serious injury.

1. Adjustments and maintenance should always be performed by a qualified technician. If proper adjustment cannot be made, contact an authorized Jacobsen Dealer.

CAUTION

Be careful to prevent entrapment of the hands and fingers between moving and fixed components of the machine.

4. Do not change speed limit settings or overspeed the drive motors.

5.2 BRAKE

A properly adjusted brake requires 10 lbs. pull at top of brake lever to engage and must have 1-1/2" (38 mm) center to center when released.

1. Minor adjustments are made at the handle. Loosen nut **(A)**, turn nut **(B)** to adjust the brake cable, then tighten nut **(A)**.
2. If adjustments cannot be made at the handle, remove the transport wheel, and make the adjustment at the brake band.
3. Loosen screw **(C)** and pull cable to obtain desired brake tension. Tighten screw **(C)**. Readjust **(A)** and **(B)**.

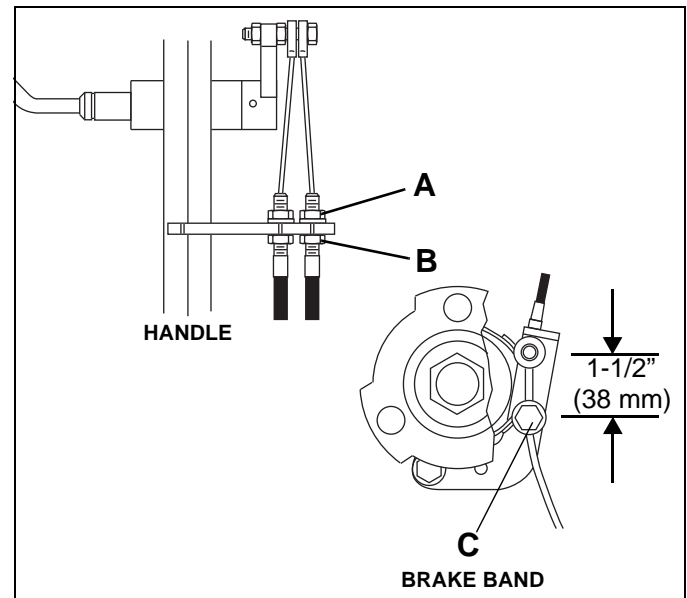


Figure 5A

5.3 SPEED PADDLE STOPS

1. Loosen both nuts **(X)**.
2. Adjust positive paddle stop **(Y)** to 7/8 in. (22 mm).
3. Adjust negative paddle stop **(Z)** to 1-1/16 in. (27 mm).
4. Tighten nuts **(X)** to lock adjustment.

After adjusting paddle stops, the controller speed paddle calibration must be reset. [See Section 3.3].

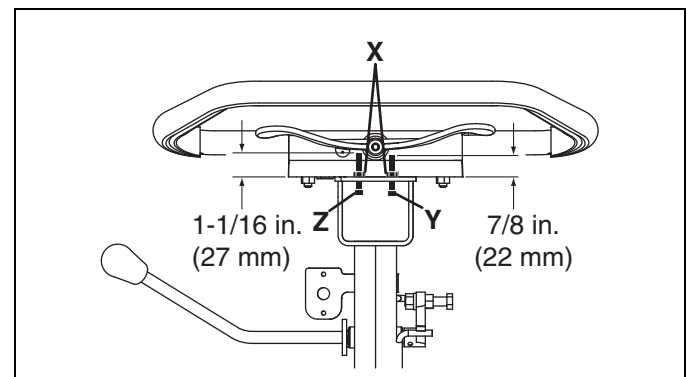


Figure 5B

5 ADJUSTMENTS (ALL UNITS)

5.4 HANDLE

1. To adjust the angle of the handle bar **(F)**, loosen screw **(D)** on both sides of the mower and adjust the handle bar to the desired position.
2. After adjusting handle bar, adjust bracket **(E)** so that the handle bar just rests on the bottom of the slot in bracket. Tighten screw **(D)**.

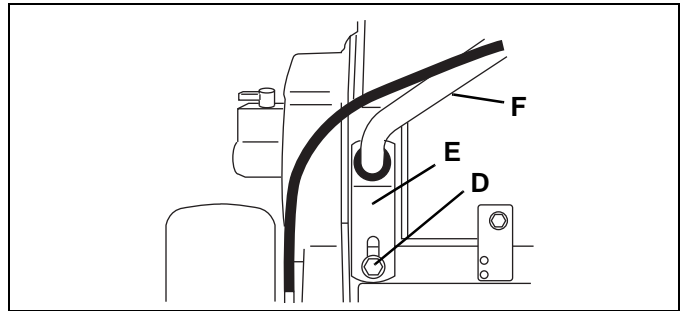


Figure 5C

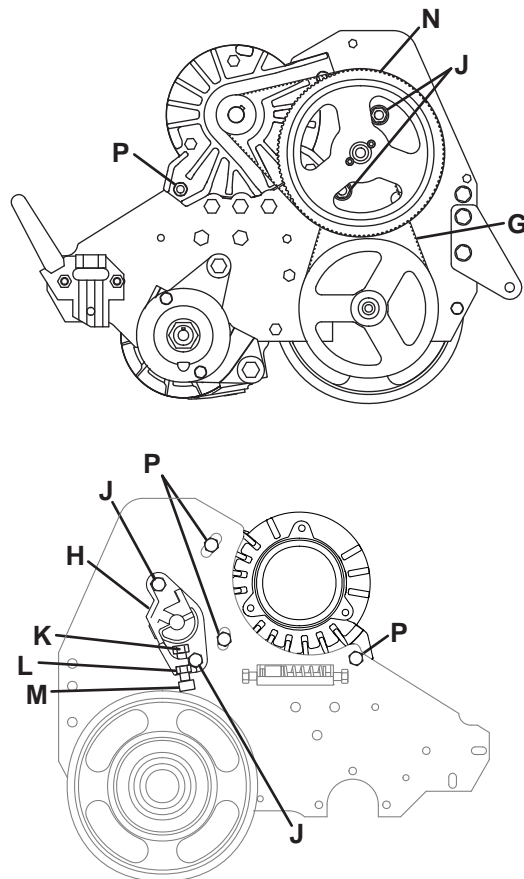
5.5 TRACTION BELTS



CAUTION

To prevent permanent damage to the belt, do not twist, fold, bend, or overtighten the belt.

1. To adjust belt **(G)**, assemble 5/16-18 x 1" hex head screw **(K)** and 5/16-18 hex nut **(L)** to bottom of bearing bracket **(H)**. Loosen nuts **(J)**.
2. Place bedknife gauge bar **(M)** on top of roller and under screw **(K)**. Tighten screw **(K)** until belt **(G)** deflects 1/10" (2.5 mm) with 1 ~ 2 lb (0.45 ~ 0.91 kg) load applied at mid span.
3. Tighten nuts **(J)** and remove 5/16-18 x 1" screw **(K)** and lower nut **(L)**.
4. Place hardware **(K and L)** in a safe place for future adjustments.
5. To adjust belt **(N)**, loosen pivot hardware **(P)**, and pivot motor housing towards front of mower until belt deflects 1/10" (2.5 mm) with 1 ~ 2 lb (0.45 ~ 0.91 kg) load applied at mid span. Tighten hardware **(P)**.



Fixed Head Mower Shown
Floating Head Mower Similar

Figure 5D

5.6 FRONT ROLLER WEIGHT

The weight on the front roller is adjustable. Adjust the front roller weight as required to meet your turf needs.



CAUTION

To prevent injury or property damage, place mower on kick stand before removing battery pack.

Full battery packs weigh approximately 55 lbs. Use proper lifting techniques when moving them.

1. **Battery Power Module:** To adjust front roller weight, disconnect power connector (**R**), and remove battery pack (**S**). Loosen hardware (**T**), place battery pack back onto mower, take mower off kickstand, and slide battery mounting tray (**U**) as required.

Gen-Set Power Module: Loosen engine mounting hardware (**V**) and slide engine (**W**) as required.

2. To adjust the front roller weight:
 - a. To increase front roller weight, slide battery tray (**U**), or engine (**W**) towards front of mower.
 - b. To decrease front roller weight, slide battery tray (**U**), or engine (**W**) towards rear of mower.
 - c. Use the decal on the power module mount as a guide for adjusting the front roller weight. Aligning the oil drain (Gen-Set) or the V-notch in the battery tray (Battery Tray) with the desired line on the decal allows for consistent front roller weight setting.
3. **Battery Power Module:** When desired weight is attained, measure distance from edge of power module mount to tray (**U**). Remove battery pack (**S**). Recheck measured dimension and tighten hardware (**R**).

Gen-Set Power Module: Tighten engine mounting hardware (**V**).

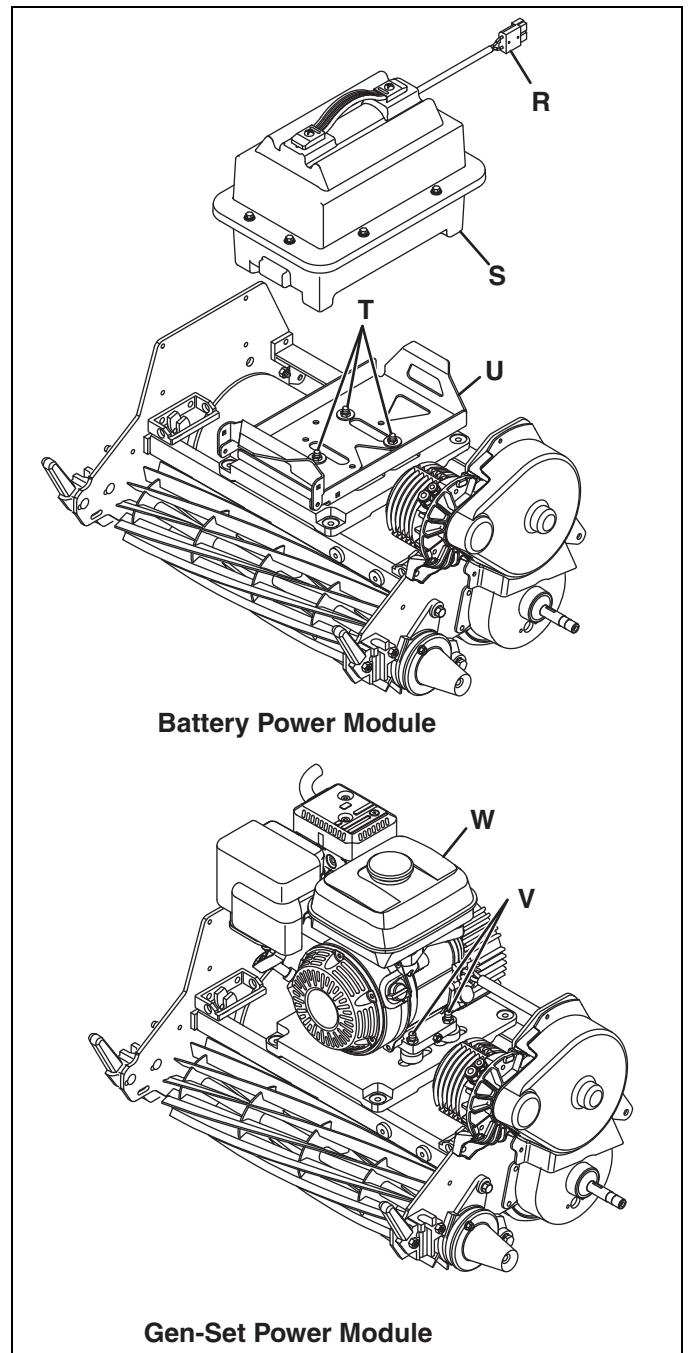


Figure 5E

5 ADJUSTMENTS (ALL UNITS)

5.7 TORQUE SPECIFICATION

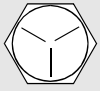



NOTICE

All torque values included in these charts are approximate and are for reference only. Use of these torque values is at your sole risk. Jacobsen is not responsible for any loss, claim, or damage arising from the use of these charts.





Extreme caution should always be used when using any torque value.

Jacobsen uses Grade 5 Plated bolts as standard, unless otherwise noted. For tightening plated bolts, use the value given for lubricated.

AMERICAN NATIONAL STANDARD FASTENERS

| SIZE | UNITS |  GRADE 5 | |  GRADE 8 | | SIZE | UNITS |  GRADE 5 | |  GRADE 8 | |
|---------|------------|--|------------|--|------------|---------|------------|--|-----------|--|-----------|
| | | Lubricated | Dry | Lubricated | Dry | | | Lubricated | Dry | Lubricated | Dry |
| #6-32 | in-lb (Nm) | – | 20 (2.3) | – | – | 7/16-14 | ft-lb (Nm) | 37 (50.1) | 50 (67.8) | 53 (71.8) | 70 (94.9) |
| #8-32 | in-lb (Nm) | – | 24 (2.7) | – | 30 (3.4) | 7/16-20 | ft-lb (Nm) | 42 (56.9) | 55 (74.6) | 59 (80.0) | 78 (105) |
| #10-24 | in-lb (Nm) | – | 35 (4.0) | – | 45 (5.1) | 1/2-13 | ft-lb (Nm) | 57 (77.2) | 75 (101) | 80 (108) | 107 (145) |
| #10-32 | in-lb (Nm) | – | 40 (4.5) | – | 50 (5.7) | 1/2-20 | ft-lb (Nm) | 64 (86.7) | 85 (115) | 90 (122) | 120 (162) |
| #12-24 | in-lb (Nm) | – | 50 (5.7) | – | 65 (7.3) | 9/16-12 | ft-lb (Nm) | 82 (111) | 109 (148) | 115 (156) | 154 (209) |
| 1/4-20 | in-lb (Nm) | 75 (8.4) | 100 (11.3) | 107 (12.1) | 143 (16.1) | 9/16-18 | ft-lb (Nm) | 92 (124) | 122 (165) | 129 (174) | 172 (233) |
| 1/4-28 | in-lb (Nm) | 85 (9.6) | 115 (13.0) | 120 (13.5) | 163 (18.4) | 5/8-11 | ft-lb (Nm) | 113 (153) | 151 (204) | 159 (215) | 211 (286) |
| 5/16-18 | in-lb (Nm) | 157 (17.7) | 210 (23.7) | 220 (24.8) | 305 (34.4) | 5/8-18 | ft-lb (Nm) | 128 (173) | 170 (230) | 180 (244) | 240 (325) |
| 5/16-24 | in-lb (Nm) | 173 (19.5) | 230 (26.0) | 245 (27.6) | 325 (36.7) | 3/4-10 | ft-lb (Nm) | 200 (271) | 266 (360) | 282 (382) | 376 (509) |
| 3/8-16 | ft-lb (Nm) | 23 (31.1) | 31 (42.0) | 32 (43.3) | 44 (59.6) | 3/4-16 | ft-lb (Nm) | 223 (302) | 298 404 | 315 (427) | 420 (569) |
| 3/8-24 | ft-lb (Nm) | 26 (35.2) | 35 (47.4) | 37 (50.1) | 50 (67.8) | 7/8-14 | ft-lb (Nm) | 355 (481) | 473 (641) | 500 (678) | 668 (905) |

METRIC FASTENERS

| SIZE | UNITS |  4.6 | |  8.8 | |  10.9 | |  12.9 | | Non Critical Fasteners into Aluminum |
|------|------------|--|-----------|--|------------|---|------------|---|------------|---|
| | | Lubricated | Dry | Lubricated | Dry | Lubricated | Dry | Lubricated | Dry | |
| M4 | Nm (in-lb) | – | – | – | – | – | – | 3.83 (34) | 5.11 (45) | 2.0 (18) |
| M5 | Nm (in-lb) | 1.80 (16) | 2.40 (21) | 4.63 (41) | 6.18 (54) | 6.63 (59) | 8.84 (78) | 7.75 (68) | 10.3 (910) | 4.0 (35) |
| M6 | Nm (in-lb) | 3.05 (27) | 4.07 (36) | 7.87 (69) | 10.5 (93) | 11.3 (102) | 15.0 (133) | 13.2 (117) | 17.6 (156) | 6.8 (60) |
| M8 | Nm (in-lb) | 7.41 (65) | 9.98 (88) | 19.1 (69) | 25.5 (226) | 27.3 (241) | 36.5 (323) | 32.0 (283) | 42.6 (377) | 17.0 (150) |
| M10 | Nm (ft-lb) | 14.7 (11) | 19.6 (14) | 37.8 (29) | 50.5 (37) | 54.1 (40) | 72.2 (53) | 63.3 (46) | 84.4 (62) | 33.9 (25) |
| M12 | Nm (ft-lb) | 25.6 (19) | 34.1 (25) | 66.0 (48) | 88.0 (65) | 94.5 (70) | 125 (92) | 110 (81) | 147 (108) | 61.0 (45) |
| M14 | Nm (ft-lb) | 40.8 (30) | 54.3 (40) | 105 (77) | 140 (103) | 150 (110) | 200 (147) | 175 (129) | 234 (172) | 94.9 (70) |

6.1 GENERAL

WARNING

Before you adjust, clean, or repair this equipment, always disengage all drives, engage parking brake, turn power off and disconnect power connector to prevent serious injury.

1. Adjustments and maintenance should always be performed by a qualified technician. If proper adjustment cannot be made, contact an authorized Jacobsen Dealer.

2. Replace, do not adjust, worn or damaged components.
3. Long hair, jewelry, or loose fitting clothing may get tangled in moving parts.

CAUTION

Be careful to prevent entrapment of the hands and fingers between moving and fixed components of the machine.

4. Do not change speed limit settings or overspeed the drive motors.

6.2 REEL TO BEDKNIFE

(Pre-adjustment Check)

1. Check the reel bearings for end play or radial play. If there is any abnormal movement of the reel, up and down, or side to side, adjust, or replace components as needed.

CAUTION

Handle the reel with extreme care to prevent personal injury and damage to the cutting edges.

2. Inspect the reel blades and bedknife to insure good sharp edges without bends or nicks.
 - a. The cutting edges of the reel blades and bedknife must be sharp, free of burrs, and show no signs of rounding off.
 - b. The bedknife and bedknife backing must be securely tightened. The bedknife must be straight and sharp.
 - c. A flat surface of at least 1/32 in. (0.8 mm) minimum must be maintained on the front face of the bedknife. Use a standard flat file to dress the bedknife.
3. If wear or damage is beyond the point where the reel or bedknife can be corrected by the lapping process, they must be reground.
4. Proper reel-to-bedknife adjustment is critical. A gap of 0.001 to 0.003" (0.025 to 0.076 mm) must be maintained across the entire length of the reel and bedknife.
5. The reel must be parallel to the bedknife. An improperly adjusted reel will lose its sharp edges prematurely and may result in serious damage to the reel and bedknife.
6. Grass conditions will also affect the adjustment.

- a. Dry, sparse conditions will require a wider gap to prevent heat buildup and damage to the reel and bedknife.
- b. High quality grass with a good moisture content requires a closer gap (near zero).

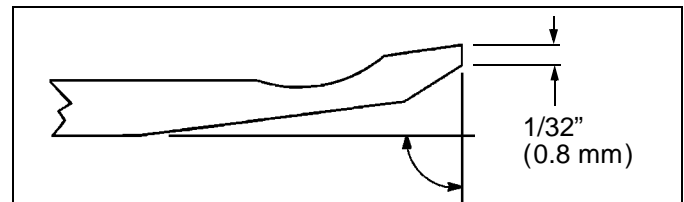


Figure 6A

6 FIXED HEAD REEL ADJUSTMENTS

6.3 BEDKNIFE ADJUSTMENT

1. Adjuster **(A)** is used to increase or decrease the spring load on the bedknife. Adjuster **(B)** is used to move the bedknife to the reel or away from the reel.
2. Once the spring is totally collapsed as a result of many adjustments, the bedknife cannot be moved. Back-off adjuster **(A)** before adjusting **(B)**.
3. For most applications, compress the spring to 1 in., (25 mm).
4. Start adjustment at the leading edge of the reel, followed by the trailing end. *The leading end of the reel blade is the end that passes over the bedknife first during normal rotation.*



CAUTION

Handle the reel with extreme care to prevent personal injury and damage to the cutting edges.

5. Turn adjuster **(B)** clockwise to bring the bedknife closer to the reel or counterclockwise to back the bedknife away from the reel.
 - a. Slide a feeler gauge or shim stock 0.001 - 0.003 in., (0.025 - 0.075 mm) between the reel blade and the bedknife. Do not turn the reel.

- b. Adjust the trailing end of the reel in the same manner, then recheck the adjustment at the leading end.
- c. When the reel and bedknife are properly adjusted, the reel will spin freely and will cut a piece of newspaper along the full length of the reel when the paper is held at 90° to the bedknife.

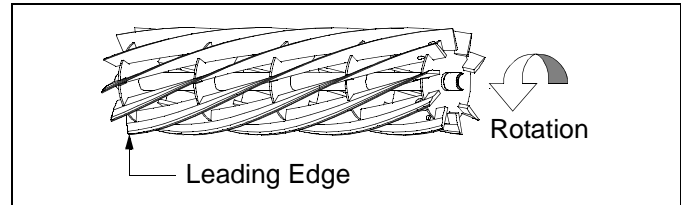


Figure 6B

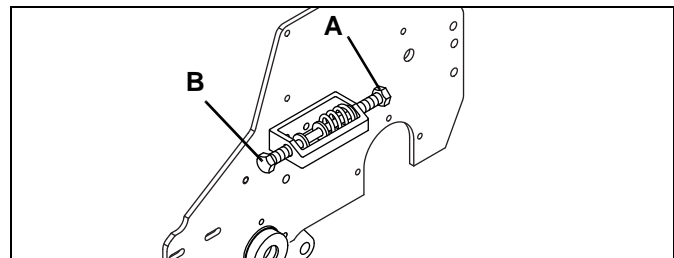


Figure 6C

6.4 CUTTING HEIGHT

Note: Make sure the bedknife is properly adjusted before setting the cutting height. [See Section 6.3].

1. Push kickstand down and tip mower back on its handle.

NOTICE

Gen-Set Power Modules: Do not leave the mower tipped back for an extended length of time or oil may migrate into the combustion chamber.

2. Loosen nuts **(D)** on both sides just enough to allow knob **(C)** to raise the front roller. Raise both sides an equal amount.
3. Set gauge screw **(G)** to the desired cutting height **(F)**. Measure from the gauge bar **(E)** to the underside of the screw head **(G)** then tighten wing nut to lock the adjustment.
4. Place gauge bar between front roller and traction roller, near the outer end of the rollers.

5. Slide screw head over bedknife **(H)** and adjust knob **(C)** so roller just contacts the gauge bar. Tighten nut **(D)**.
6. Repeat Steps 4 and 5 on the opposite end of the reel then tighten nuts **(D)**. Recheck and readjust the cutting height if necessary.

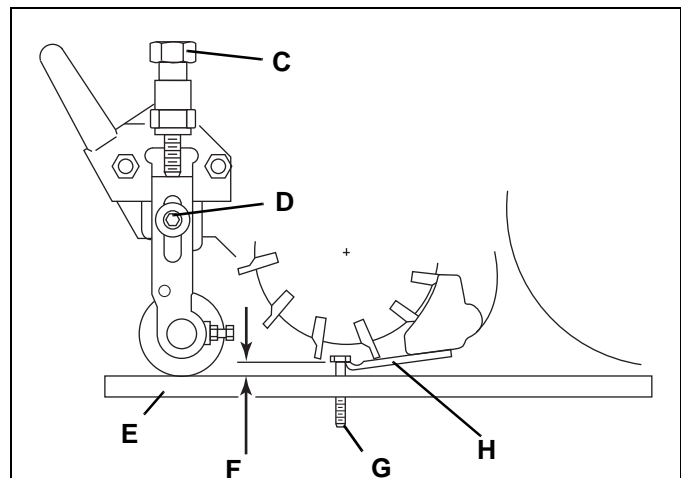


Figure 6D

7.1 GENERAL



WARNING

Before you adjust, clean, or repair this equipment, always disengage all drives, engage parking brake, turn power off and disconnect power connector to prevent serious injury.

1. Adjustments and maintenance should always be performed by a qualified technician. If proper adjustment cannot be made, contact an authorized Jacobsen Dealer.

2. Replace, do not adjust, worn or damaged components.
3. Long hair, jewelry or loose fitting clothing may get tangled in moving parts.



CAUTION

Be careful to prevent entrapment of the hands and fingers between moving and fixed components of the machine.

4. Do not change speed limit settings or overspeed the drive motors.

7.2 BEDKNIFE-TO-REEL (Pre-adjustment Check)

1. Check the reel bearings for end play or radial play. There should be no end play or radial play. See Section 7.5.



CAUTION

To prevent personal injury and damage to the cutting edges, wear gloves and handle the reel and bedknife with extreme care.

2. Inspect the reel blades and bedknife to insure good sharp edges without bends or nicks.
 - a. The leading edge of the reel blades must be sharp, free of burrs and show no signs of rounding off.
 - b. The bedknife and bedknife backing must be securely tightened. The bedknife must be straight and sharp.
 - c. A flat surface of at least 1/32 in. (0.8 mm) minimum must be maintained on the front face of the bedknife. Use a standard flat file to dress the bedknife.
3. If wear or damage is beyond the point where the reel or bedknife can be corrected by the lapping process, they must be reground.
4. Proper reel-to-bedknife adjustment is critical. A gap of 0.001 to 0.003" (0.025 to 0.076 mm) must be maintained across the entire length of the reel and bedknife.
5. The reel must be parallel to the bedknife. An improperly adjusted reel will lose its sharp edges prematurely and may result in serious damage to the reel and bedknife.
6. Grass conditions will also affect the adjustment.

- a. Dry, sparse conditions will require a wider gap to prevent heat buildup and damage to the reel and bedknife.
- b. High quality grass with a good moisture content requires a closer gap (near zero).

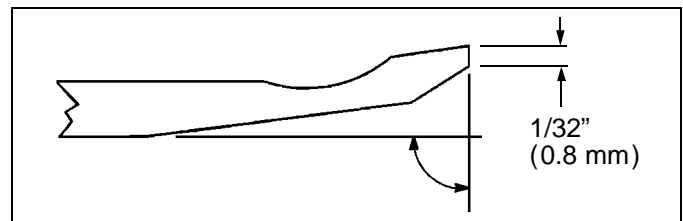


Figure 7A

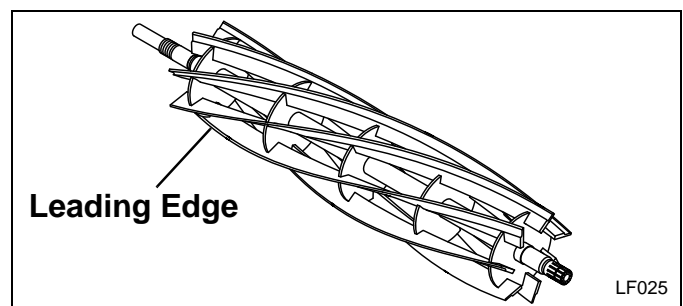


Figure 7B

7 FLOATING HEAD REEL ADJUSTMENTS

7.3 BEDKNIFE ADJUSTMENT

1. Read Section 7.2 before making the adjustment.
2. Start adjustment at the leading end of the reel, followed by the trailing end. *The leading end of the reel blades is that end which passes over the bedknife first during normal reel rotation.*
3. Additional access to bedknife adjusting hardware (**B** and **C**) can be obtained by pressing the limit bracket (**A**) away from the reel as the mower is tipped back onto it's handle. This allows the back side of the reel to pivot down and away from the frame.

NOTICE

Gen-Set Power Modules: Do not leave the mower tipped back for an extended length of time or oil may migrate into the combustion chamber.

4. Use adjusters (**B** and **C**), to adjust gap. Loosen bottom adjuster (**C**) and turn top adjuster (**B**) down (Clockwise) to close gap.
 - a. Slide a feeler gauge or shim stock 0.001" - 0.003" (0.025 - 0.075 mm) between the reel blade and the bedknife. Do not turn the reel.
 - b. Adjust the trailing end of the reel to the same gap in a similar manner then recheck the adjustment at the leading end.
 - c. When the reel is properly adjusted to the bedknife, the reel will spin freely and you should be able to cut a piece of newspaper, along the full length of the reel, when the paper is held at 90° to the bedknife.

NOTICE

Avoid excessive tightening or serious damage may result to bedknife and reel blades. Reels must turn freely.

4. Return mower to upright position. Limit bracket (**A**) is spring loaded and should latch into bracket on reel.

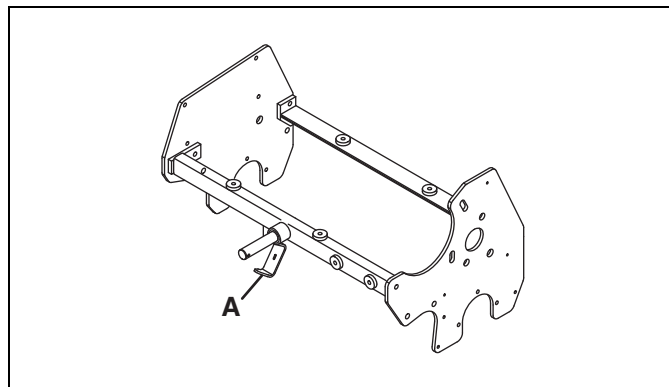


Figure 7C

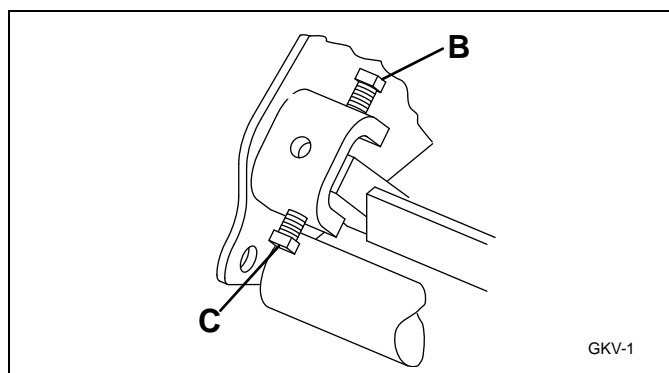


Figure 7D

7.4 CUTTING HEIGHT

Note: Always make the reel to bedknife adjustment before adjusting height of cut. (Sections 7.2 and 7.3).

1. Push kickstand down and tip mower back on it's handle.

NOTICE

Gen-Set Power Modules: Do not leave the mower tipped back for an extended length of time or oil may migrate into the combustion chamber.

1. Set desired cutting height on the gauge (E).
 - a. Measure distance between the underside of screw head and gauge block surface (F).
 - b. Adjust screw (H) to obtain desired height then tighten the wing nut.
2. Loosen the nuts on the front roller brackets (G) just enough to allow the adjuster knob (K) to raise or lower the front roller.
3. Place gauge (E) across bottom of front and rear rollers near one end of roller.

4. Slide the head of gauge screw (H) over the bedknife (L) and adjust the knob (K) to close the gap between the screw head and bedknife. Then tighten locknut (G).
5. Repeat Steps 4 and 5 on opposite end. Complete adjustment to one end before adjusting opposite end.
6. Tighten nuts (G) and recheck each end.

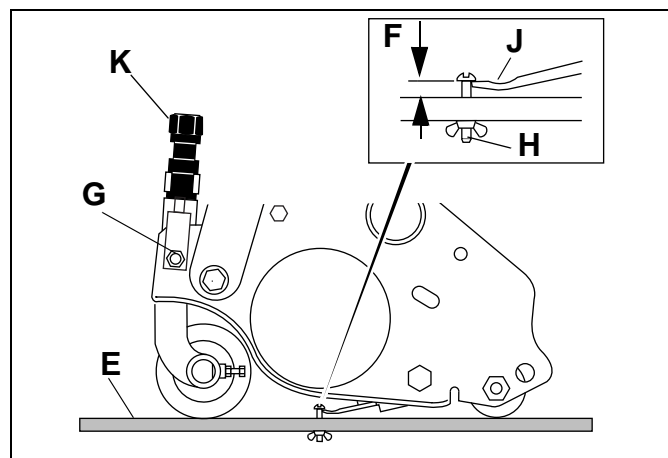


Figure 7E

7.5 REEL BEARING

Any end play or radial play indicates bad bearings, a weak tension spring or a backed off nut.

1. Check bearing housing mounting hardware. Tighten or replace components as required. Carefully clean threads with degreaser.
2. Apply a medium strength grade of Loctite to nut (P), then thread nut onto the reel shaft until the nut is 1-27/32" (46 mm) from the end of the reel shaft.

3. Fill reel bearing housings with NLGI - Grade O grease after adjusting spring.

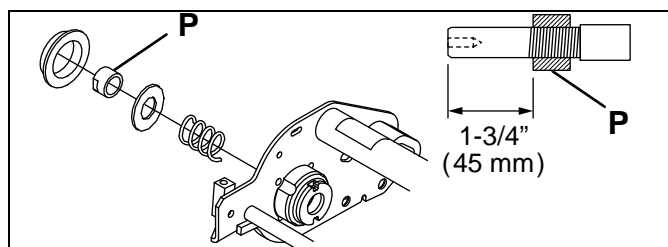


Figure 7F

7.6 REEL ASSEMBLY REMOVAL

The reel assembly can be removed for maintenance or to use a different reel.

1. Remove hairpin and washer and slide the lift hangers off the pins.
2. Disconnect motor electrical connectors and reel ground wire. Whenever the reel motors are disconnected from the harness, cover the connectors on the motor to prevent debris from entering motor.
3. Remove hairpin and flat washer and lift panhard rod off of reel bolt.

NOTICE

Gen-Set Power Modules: Do not leave the mower tipped back for an extended length of time or oil may migrate into the combustion chamber.

4. Tip the unit back onto the handle and slide the reel away from the mower.
5. Reel assembly is reverse of removal. **Hand tighten motor connections only, do not use wrenches to tighten motor connection.**


8 BATTERY POWER MODULE

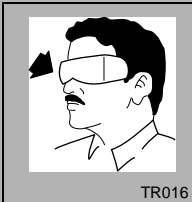
8.1 SAFETY

Batteries contain dilute sulfuric acid which can result in severe burns.

Hydrogen gas is formed within a battery during the charging cycle. Hydrogen in concentrations of 4% and higher are explosive and can be ignited by open flame or an electrical spark. A battery explosion will cause sulfuric acid and battery components to be thrown over a large area with considerable force.

Always observe the following warnings when working on or near batteries:

**WARNING**



The electrolyte in a storage battery is a dilute acid which can cause severe burns to the skin and eyes. Treat all electrolyte spills to the body and eyes with extended flushing with clear water. Contact a physician immediately. Always wear a safety shield or approved safety goggles when charging batteries.


Hydrogen is explosive in concentrations as low as 4% and is generated in the charging cycle of electric mowers. Because it is lighter than air, it will collect in the ceiling of buildings necessitating proper ventilation. Air exchanges of 5 changes per hour is considered the minimum requirement.

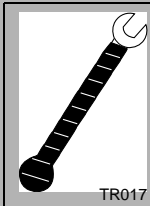
Never smoke around batteries.

Never charge batteries in an area that has open flame or electrical equipment that could cause an electrical arc.

Be sure that the key switch is off, all electrical accessories are turned off and power connector is disconnected before starting work on vehicle.

Remove all jewelry (watches, ring etc.)

**WARNING**



Wrap wrenches with vinyl tape to prevent the possibility of a dropped wrench from 'shorting out' a battery, which could result in an explosion and severe personal injury.

Electrolyte spills should be neutralized with a solution of 1/4 cup (59.1ml) of sodium bicarbonate (baking soda) dissolved in 1-1/2 gallons (5.7 liters) of water and flushed with water.

Never disconnect a circuit under load at a battery terminal.

Wear appropriate protective clothing when working with batteries. Electrolyte can cause severe burns to the eyes, skin and clothing.

Full battery packs weigh approximately 55 lbs. Use proper lifting techniques when moving them.

Batteries, battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash your hands after handling.**

8.2 GENERAL

The batteries used in this mower are sealed lead acid (SLA) maintenance free type.

Temperature is important when conducting tests on a battery and test results must be corrected to compensate for temperature differences.

As a battery ages, it still performs adequately except that its **capacity** is diminished. Capacity describes the time that a battery can continue to provide its design amperes from a full charge.

A new battery must **mature** before it will develop its maximum capacity. A battery has a maximum life, therefore good maintenance is designed to maximize the **available** life and reduce the factors that can reduce the life of the battery.

8.3 MAINTENANCE

Tool List

Insulated wrench, 3/8"
 Insulated wrench, 11/32"
 Standard Screwdriver

Before charging batteries

Inspect the connector housings of the battery charger and battery pack for dirt or debris. It is suggested to apply white lithium grease to both terminals to prevent corrosion.

Charge the batteries daily after use.

8.4 CLEANING BATTERIES

When cleaning the batteries, do not use a water hose without first spraying with a solution of sodium bicarbonate (baking soda) and water to neutralize any acid deposits.

Use of a water hose without first neutralizing any acid, will move acid from the top of the batteries to another area of the mower or storage facility where it will attack the metal structure or the concrete/asphalt floor. After hosing down the batteries, a residue will be left on the batteries which is conductive and will contribute to the discharge of the batteries.

The correct cleaning technique is to spray the top and sides of the batteries with a solution of sodium bicarbonate (baking soda) and water. This solution is best applied with a garden type sprayer equipped with a **non metallic spray wand**. The solution should consist of 1/4 cup (59.1 ml) of sodium bicarbonate (baking soda) mixed with 1-1/2 gallons (5.7 l) of clear water. In addition to the batteries, special attention should be paid to metallic components adjacent to the batteries which should also be sprayed with the sodium bicarbonate (baking soda) solution.

Allow the solution to sit for at least three minutes; use a soft bristle brush or cloth to wipe the tops of the batteries in order to remove any residue that could cause the self discharge of the battery. Rinse the entire area with low pressure clear water. Cleaning should take place yearly or more often under extreme conditions.

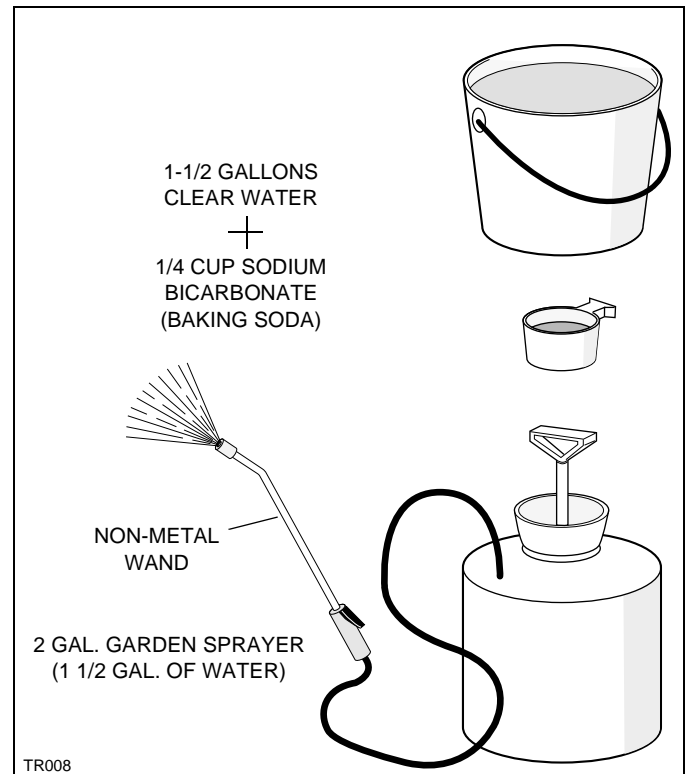


Figure 8A

8 BATTERY POWER MODULE

8.5 BATTERY CHARGER

The battery charger is designed to fully charge the battery pack. Read the instruction manual included with the charger for proper operating procedure.

Before charging, the following should be observed:

WARNING

Portable chargers should be mounted on a platform above the ground, or in such a manner as to permit the maximum air flow underneath and around the charger. Serious damage to the charger, overheating and potential for fire may result if the charger does not have sufficient air flow.

The charging must take place in an area that is well ventilated and capable of removing the hydrogen gas that is generated by the charging process. A **minimum** of five air exchanges per hour is recommended.

The charging connector components are in good condition and free from dirt or debris. It is suggested to apply white lithium grease to both terminals to prevent corrosion.

The charger connector is fully inserted into the battery pack receptacle.

The charger connector/cord set is protected from damage and is located in an area to prevent injury that may result from personnel running over or tripping over the cord set.

Install all chargers in accordance with the manufacturers instructions.

If the charger is operated in an outdoor location, rain and sun protection must be provided.

Remove AC power cord from outlet before connecting or disconnecting battery charger to battery pack.

The charging (DC) cord is equipped with a polarized connector which fits into a matching receptacle on the battery pack.

If the charger is not operating correctly, unplug charger from both the AC outlet and the battery pack and check the fuse. If a new fuse is required, order part number 4102780 from your Jacobsen Dealer. There is one spare fuse included in the fuse holder.

AC Voltage

The charger is equipped with an input voltage selector switch located on the rear of the charger. Determine what input voltage is used in your area and set switch accordingly before connecting AC power cord. This charger can be used with the following AC input voltages:

- 100 - 130 V (Set voltage selector to 115 V (Position 1))
- 200 - 240 V (Set voltage selector to 230 V (Position 2))

NOTE: *Charger will operate with either a 50 or 60 Hz input voltage.*

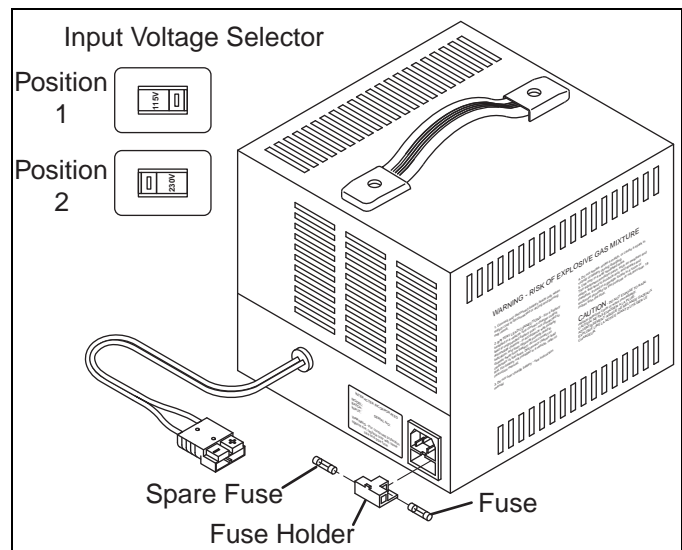
Make certain the AC power cord is equipped with an appropriate plug for the area you live in. The charger is equipped with a grounding plug, do not attempt to defeat its functionality.

WARNING

An ungrounded electrical device may become a physical hazard that could result in an electrical shock or electrocution

Note: *The AC power cord included with the battery charger is used with 115 V - 60 Hz (North America) input voltage only. If you live in an area where 115 V - 60 Hz input voltage is not used, a new AC power cord must be purchased locally.*

The battery charger should fully charge the battery pack in approximately 5 hours with 115V AC input voltage. Battery charging times may exceed 8 hours in areas where 100V AC input voltage is used.



8.6 BATTERY INSTALLATION

If the batteries have been cleaned and any acid in the battery tray area neutralized, no corrosion to the surrounding area should be present. Any corrosion found should be immediately removed with a putty knife and a wire brush. The area should be washed with a solution of sodium bicarbonate (baking soda) and water and thoroughly dried before priming and painting with a corrosion resistant paint.

The batteries should be placed into the battery tray as shown in **Figure 8B**. Using batteries with the correct physical size will prevent movement, but will not be tight enough to cause distortion of the battery case.

Inspect all wires and terminals. Clean any corrosion from the battery terminals or the wire terminals with a solution of sodium bicarbonate (baking soda) and brush clean if required.

Use care to connect the battery wires as shown in Figure 8C and tighten the battery post hardware securely. Protect the battery terminals and battery wire terminals with a commercially available protective coating.

Battery Pack Assembly:

1. Install batteries into battery tray.
2. Fasten fuse cable assembly (**D**) to battery pack with screws, lockwashers, and nuts.
3. Fasten two cable jumper wires (**E**) into their respective positions.
4. Thread the main cable (**F**) through the hole in the side of the battery case lid (**G**).
5. Attach the main cable (**F**) to the batteries, and battery monitor (**M**).

NOTE: There will be an Orange/Green wire with insulated 1/4" terminal that is not used on the Eclipse mowers. Seal end of the wire to prevent short-circuits.

6. Assemble the two halves of the battery case (**G**) and (**H**), with screws (**J**), flat washers (**K**), and battery casing straps (**L**).

Refer to Section 2.6 for battery specifications.

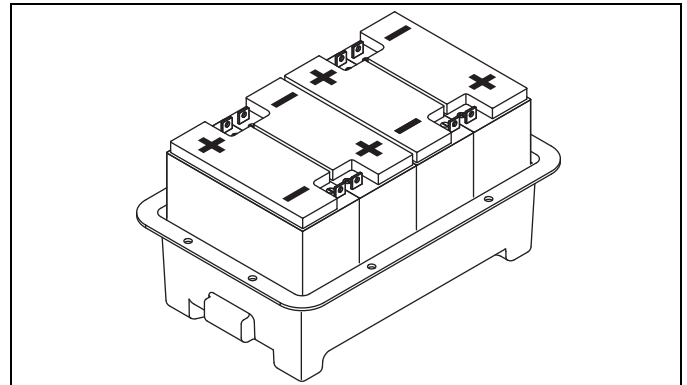


Figure 8B

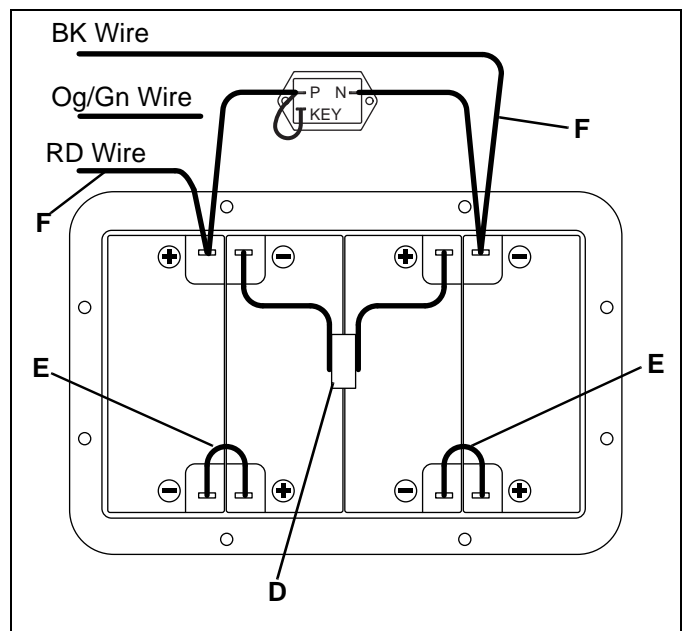


Figure 8C

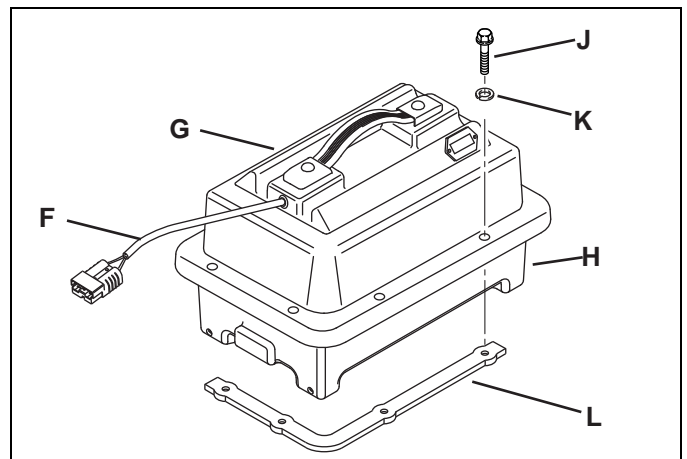


Figure 8D



WARNING

Aerosol containers of battery terminal protectant must be used with extreme care. Insulate the metal container to prevent the metal can from contacting battery terminals which could result in an explosion.

8 BATTERY POWER MODULE

8.7 REPLACING BATTERY PACK

The battery pack **(A)** is designed to be easily lifted out and replaced. This allows the mower to quickly return to service should the batteries become discharged or fail. Additional battery packs are available as an accessory. See Section 2.7



CAUTION

To prevent injury or property damage, place mower on kick stand before removing battery pack.

Full battery packs weigh approximately 55 lbs. Use proper lifting techniques when moving them.

To remove battery tray:

1. Park tractor on a solid, level area.
2. Set parking brake and remove key from switch.
3. Disconnect battery connector **(B)**, place mower on kickstand.
4. Push and hold battery release latch **(C)** down and lift battery pack **(A)** away from mower.
5. Reverse procedure to install pack. Be sure pack is completely seated on frame and secure.

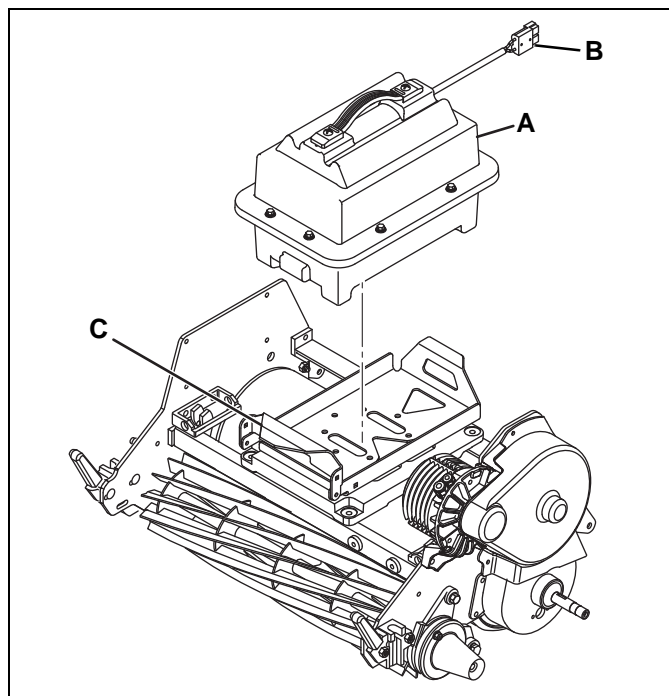


Figure 8E

9.1 ENGINE

IMPORTANT: A separate Engine Manual, prepared by the engine manufacturer, is supplied with the power module. Read the engine manual carefully until you are familiar with the operation and maintenance of the engine. Proper attention to the engine manufacturer's directions will assure maximum service life of the engine. To order replacement engine manuals contact the engine manufacturer.

The proper break-in of a new engine can make a considerable difference to the performance and life of the engine.

NOTICE

The mower is designed to operate and cut most efficiently at the preset governor setting. Do not change the engine governor settings or overspeed the engine.

During the break-in period, Jacobsen recommends the following:

1. Operate machine modestly for the first 25 hours.
2. Allow the engine to reach operating temperature before operating at full load.
3. Change the engine oil after the first 20 hours of operation.
4. Refer to Section 12.2 and Engine Manual for specific maintenance intervals.

9.2 ENGINE OIL

Check the engine oil at the start of each day, before starting the engine. If the oil level is low, remove oil filler cap and add oil as required.

Perform initial oil change after the first 20 hours of operation. Change oil every 100 hours thereafter.

See the engine manufacturer's Owners's Manual for detailed service information.

After adding or changing oil, start and run engine at idle with all drives disengaged for 30 seconds. Shut engine off. Wait 30 seconds and check oil level. Add oil to bring up to FULL mark on dipstick.

Use only SAE 10W30 engine oils with API classification SG/SF/CC/CD

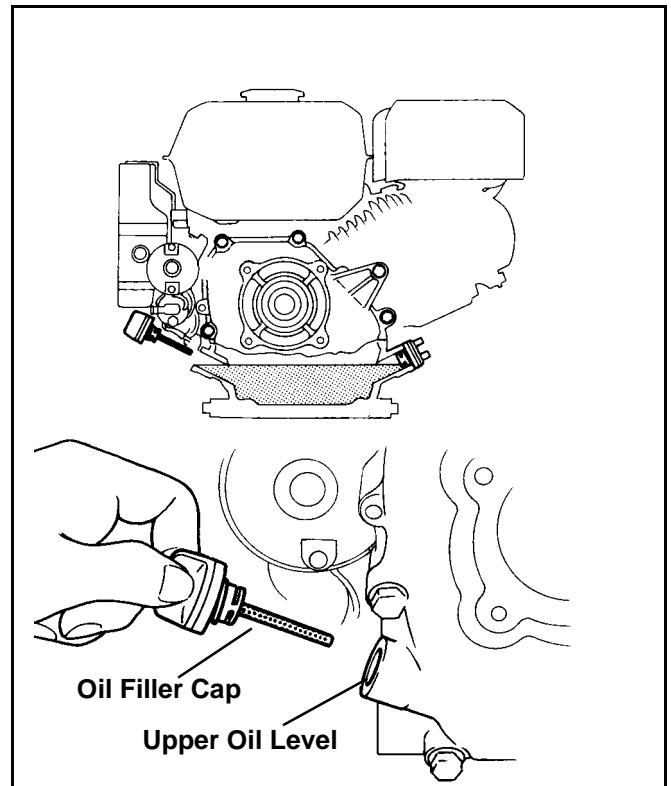


Figure 9A

9 GEN-SET POWER MODULE

9.3 ENGINE SPEED

The engine speed is set at the factory for proper generator output. However, engine speed should be checked periodically, and adjusted to 59 volts. An output voltage greater than 60 volts will cause an alarm to sound and may cause system damage. Controller will shut down after 60 seconds if the over voltage condition is not corrected.

Adjustment should be made with the engine at operating temperature using a volt meter.

1. Stop the engine and disconnect the generator power connector.
2. Remove the throttle lever cover.
3. Start the engine and adjust the engine throttle position until an output voltage of 59 volts is achieved at generator power connector.
4. Stop the engine and install throttle lever cover.
5. Connect generator power connector.

9.4 FUEL

Handle fuel with care - it is highly flammable. Use an approved container, the spout must fit inside the fuel filler neck. Avoid using cans and funnels to transfer fuel.



WARNING

Never remove the fuel cap from the fuel tank, or add fuel, when the engine is running or while the engine is hot.

Do not smoke when handling fuel. Never fill or drain the fuel tank indoors.

Do not spill fuel and clean spilled fuel immediately.

Never handle or store fuel containers near an open flame or any device that may create sparks and ignite the fuel or fuel vapors.

Be sure to reinstall and tighten fuel cap securely.

- Store fuel according to local, state or federal ordinances and recommendations from your fuel supplier.
- Never overfill or allow the tank to become empty.
- Use clean, fresh, regular grade, unleaded gasoline minimum 86 Octane.
- See engine manual before using oxygenated (blended) fuel.
- Do not fill above the fuel filler neck.

10.1 GENERAL

WARNING

Before you adjust, clean, or repair this equipment, always disengage all drives, engage parking brake, turn power off and disconnect power connector to prevent serious injury.

1. Adjustment and maintenance should always be performed by a qualified technician. If proper adjustments cannot be made, contact an Authorized Jacobsen Dealer.
2. Inspect the equipment on a regular basis, establish a maintenance schedule and keep detailed records.
 - a. Keep the equipment clean.
 - b. Keep all moving parts properly adjusted and lubricated.
 - c. Replace worn or damaged parts before operating the machine.
 - d. Keep shields in place and all hardware securely fastened.

e. Keep tires properly inflated (If installed).

3. Long hair, jewelry or loose fitting clothing may get tangled in moving parts.

CAUTION

Be careful to prevent entrapment of the hands and fingers between moving and fixed components of the machine.

4. Use the illustrations in the Parts Catalog as reference for the disassembly and reassembly of components.
5. Recycle or dispose of all hazardous materials (batteries, lubricants, etc.) according to local, state or federal regulations.
6. Do not change speed limit settings or overspeed the drive motors.
7. After servicing reel or traction motor, check to be sure motor connections are tight. **Hand tighten motor connections only, do not use wrenches to tighten motor connection.**

10.2 TIRES (OPTION)

1. Keep tires properly inflated to prolong tire life. Check pressure only when the tires are cool.
2. Use an accurate, low pressure tire gauge. 6 - 8 psi (0.413-0.551 BAR)

CAUTION

Unless you have the proper training, tools and experience, DO NOT attempt to mount a tire on a rim. Improper mounting can produce an explosion that may result in serious injury.

10.3 WHEEL BEARING

The bearing has the word **LOCK** and an arrow stamped on the face. When replacing the bearing, make absolutely certain that the bearing is being installed in the proper direction or rotation.

For the **Right** wheel, install the bearing with the "**LOCK**➡" arrow to the **Outside** of the bearing housing.

For the **Left** wheel, install the bearing with the "**LOCK**➡" arrow to the **Inside** of the housing.

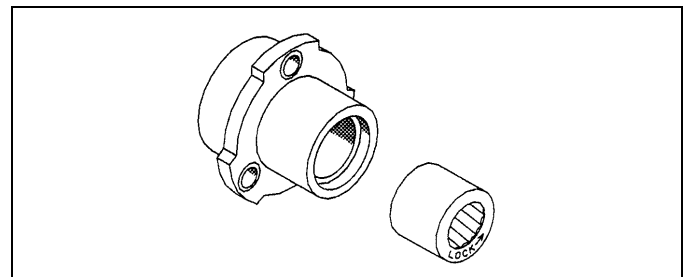


Figure 10A

10 MAINTENANCE

10.4 BACKLAPPING AND GRINDING

Check for damage to the bedknife and reel blades. Refer to (Section 5.2).

1. Determine if backlapping or grinding will restore the proper cutting edge.
2. For optimum performance use a bedknife grinder to touch-up the blade then reassemble and adjust the bedknife to the reel as described in (Section 5.2).

Disconnect motor connections whenever turning the reel by means other than the reel motor. When tightening, **hand tighten motor connections only, do not use wrenches to tighten motor connection.**

3. Start unit in backlap mode.
 - a. Turn key **(D)** to start position and release. Press both orange buttons **(G and H)** when Jacobsen Version X.XX is on the display **(A)**. Use the orange buttons **(G or H)** to select and the black button **(F)** to enter the four digits for the Maintenance mode pin. **[Section 3.3]**
 - b. Place reel switch **(E)** in backlap position. BACKLAP YES NO screen will display. Select YES to backlap. If NO is selected, TURN BACKLAP SWITCH OFF will be displayed.
 - c. Engage O.P.C. bail **(C)** and release. Reel motor will begin turning, a slow beeping (1 every three seconds) alarm will sound and a five minute timer will start.
 - d. Adjust reel speed between 10% and 100% using the orange buttons **(G or H)**.
 - e. Apply lapping compound with a long handle brush along the entire length of the reel, (180 grit is recommended, Section 2.7).
 - f. Continue lapping and at the same time make a fine adjustment on the reel and bedknife until there is a uniform clearance along the full length of the cutting edges.
 - g. Exit backlap mode by allowing the five minute timer to end, placing reel switch **(E)** in the OFF position, moving the O.P.C. bail **(C)** or moving the thumb lever **(B)**.
 - h. Turn key switch **(D)** to off position.
4. Carefully and thoroughly remove all lapping compound from reel and bedknife *before running the reel in forward direction.*

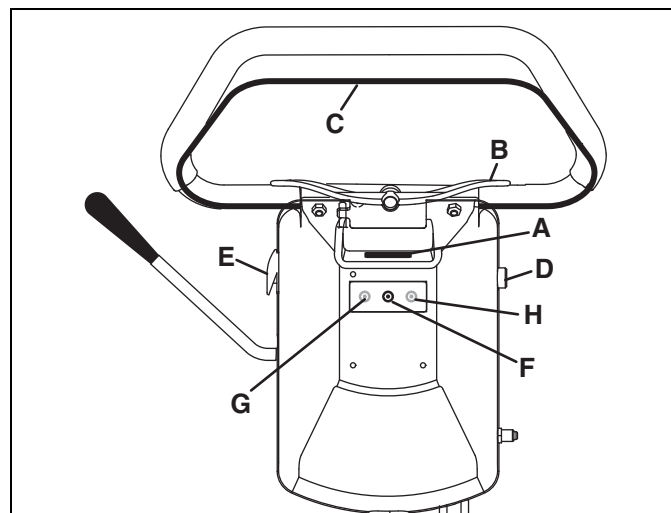


Figure 10B

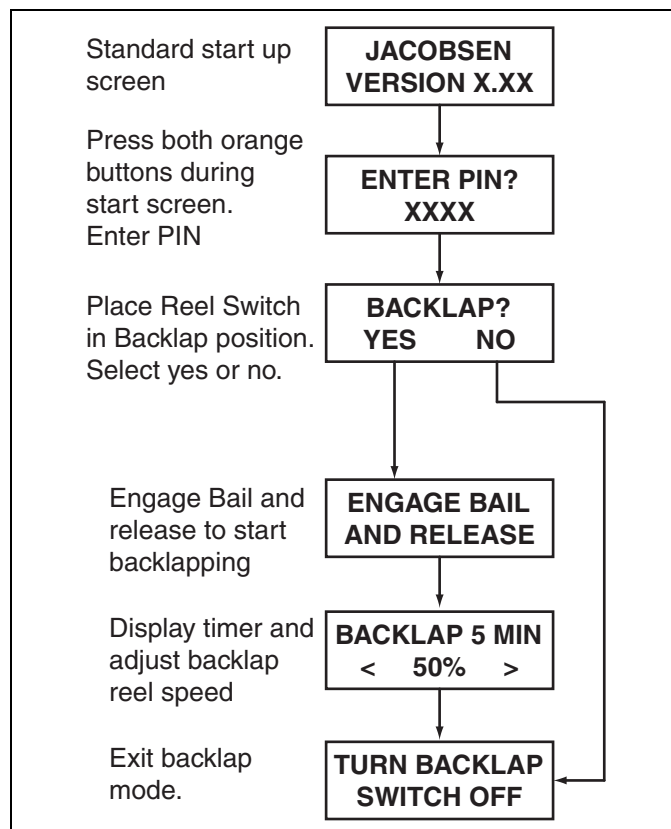


Figure 10C

10.5 STORAGE

General

1. Wash the mower thoroughly and lubricate. Repair and paint damaged or exposed metal.
2. Inspect the mower, tighten all hardware, replace worn or damaged components.
3. Clean the tires thoroughly and store the tractor on the kickstand so the load is off the tires. The front roller should be resting on a wood board.
4. Keep the machine and all its accessories clean, dry and protected from the elements during storage. Never store equipment near an open flame.
5. Wash the reel and bedknife thoroughly, then repair and paint any damaged or exposed metal.
6. Lubricate all fittings and friction points.
7. Backlap the reels then back the reel away from the bedknife. Apply a light coat of rust preventative oil to the sharpened edges of the reel and bedknife.



CAUTION

To prevent personal injury and damage to the cutting edges, handle the reel with extreme care.

Battery Power Module:

During periods of storage, the batteries will need attention to keep them maintained and prevent discharge.

In high temperatures the chemical reaction is faster, while low temperatures cause the chemical reaction to slow down. If a fully charged battery is allowed to sit unused, it will slowly self discharge. When the battery charge level falls to 80% of its full charge, it should be recharged.

If a battery is allowed to fully discharge and is left in a discharged state, sulfation takes place on and within the plates. This condition is not reversible and will cause permanent damage to the battery. In order to prevent damage, the battery should be recharged.

In winter conditions, the battery must be fully charged to prevent the possibility of freezing. A fully charged battery will not freeze in the most severe of winter climates. Although the chemical reaction is slowed in cold temperatures, the battery must be stored fully charged, and disconnected from any circuit that could discharge the battery. Disconnect the charging plug from the mower power connector. The batteries must be cleaned and all deposits neutralized and removed from the battery case to slow self discharge. The batteries should be tested or recharged at thirty day intervals.

Battery Power Module After Storage

1. Fully charge the batteries.
2. Make certain that the tires are properly inflated.
3. Remove all oil from the reels and bedknife. Adjust bedknife and cutting height.

Gen-Set Power Module:

1. While the engine is warm, remove drain plug, drain the oil from the crankcase. Install drain plug and refill with fresh oil. Torque drain plug to 22 ft. lb. (30 Nm).
2. Clean exterior of engine. Paint the exposed metal or apply a light coat of rust preventative oil.
3. To prevent the build-up of gum residues and vanish films, fill the tank with stabilized fuel. Use an anti-oxidant fuel conditioner, such STA-BIL®. Read and follow the instructions on the container.
4. Operate the engine for about 5 minutes to distribute the treated fuel. Stop the engine, close the fuel shut-off valve and let the engine cool. Drain fuel.
5. Remove the spark plug and pour about one ounce of SAE 30 oil into the cylinder. Crank engine slowly by hand to distribute oil over the cylinder wall. Replace the spark plug.
6. Pull the starter rope slowly until resistance is felt. Continue pulling until the notch on the starter pulley aligns with the hole on the recoil starter. At this point, the intake and exhaust valves are closed.

Gen-Set Power Module After Storage

1. Check or service the fuel filter and air cleaner.
2. Check oil level in the engine crankcase.
3. Fill the fuel tank with fresh fuel. Open fuel shut off valve.
4. Remove all oil from the cutting edges. Readjust reel-to-bedknife and cutting height.
5. Start the engine and allow enough time for the engine to become properly warmed and lubricated.



WARNING

Never operate the engine without proper ventilation; exhaust fumes can be fatal if inhaled.

11 TROUBLESHOOTING

11.1 GENERAL

The troubleshooting chart below lists basic problems that may occur during start-up and operation. For more detailed information, contact your area Jacobsen Dealer.

| Symptoms | Possible Causes | Action |
|---|--|--|
| Unit does not have power | <ol style="list-style-type: none">1. Power Connector Disconnected2. Batteries Discharged3. Engine not running4. 50 Amp fuse blown5. 20 Amp circuit breaker tripped6. Defective Battery7. O.P.C. bail engaged | <ol style="list-style-type: none">1. Connect Power Connector2. Fully charge battery pack3. Start engine before attempting to energize unit4. Open battery tray and check fuse. Replace5. Reset6. Perform load test, replace batteries as needed7. Disengage bail and restart |
| Engine will not start. | <ol style="list-style-type: none">1. Choke in wrong position2. Empty fuel tank or dirty fuel3. Fuel Shut-off valve closed4. Engine / Spark Plug5. Engine switch off | <ol style="list-style-type: none">1. See Engine Manual2. Drain and refill fuel tank with fresh, clean fuel3. Open fuel shut-off valve4. See Engine Manual5. Turn engine switch to On |
| Engine hard to start or runs poorly, loses power or stalls. | <ol style="list-style-type: none">1. Choke in wrong position2. Dirty or incorrect fuel3. Loose Wiring4. Air intake plugged5. Vent in fuel cap plugged | <ol style="list-style-type: none">1. See Engine Manual2. Refill with proper grade, clean fuel3. Check spark plug wire4. Clean air intake and air cleaner5. Clean fuel cap |
| Mower does not react properly to O.P.C. Lever | <ol style="list-style-type: none">1. Power switch not on2. Parking brake engaged3. Reel switch in off position4. Broken Belt5. Bail lever not properly calibrated6. Traction motor fault | <ol style="list-style-type: none">1. Follow proper start-up procedure2. Disengage parking brake3. Turn reel switch on4. Check and replace belts as needed5. Calibrate bail lever6. Check LCD display, service traction motor |
| Reel does not cut, or cuts unevenly | <ol style="list-style-type: none">1. Reel to bedknife not adjusted2. Reel switch in off position3. Reel motor fault4. Low battery charge5. Over Voltage condition | <ol style="list-style-type: none">1. Adjust Reel to Bedknife2. Turn reel switch on3. Check LCD display, service reel motor4. Fully charge battery pack5. Adjust generator output |

12.1 GENERAL

The mower was designed for minimum lubrication. Over greasing will produce high loads on the bearings; thereby reducing the performance of the machine. Over greasing reel bearings may also damage the electric motor; voiding the warranty.

All maintenance intervals must be performed more frequently when operating in extremely dusty conditions.



WARNING

Before you clean, adjust, or repair this equipment, disengage all drives, engage parking brake, turn power off and disconnect power connector to prevent injuries.

1. Always clean grease fittings before and after lubrication.
2. Lubricate with grease that meets or exceeds NLGI Grade 2 LB specifications. Apply grease with a manual grease gun and fill slowly until grease begins to seep out. Do not use compressed air.
3. For smooth operation of pivot points and other friction points, apply several drops of SAE 30 oil every 50 hours or as required.
4. Do not over grease reel bearing **(L2)**. Damage to the motor may result. This damage is not covered under the warranty.
5. To lubricate point **(L4)**, remove L.H. transport wheel and mounting bracket **(E)** to gain access to fitting. Turn the traction drum if pulley **(F)** is blocking the fitting then insert grease gun through hole and carefully apply grease.
6. To lubricate points **(L7)**, remove transport wheel, nut **(A)** from end of shaft and pull wheel hub **(D)** off. Remove collar **(B)** and bushing **(C)** then pack bearing with lithium grease.

12.2 MAINTENANCE CHART

Recommended Service and Lubrication Intervals

| | Every 3-4 Hours | Every 20 Hours | Every 50 Hours | Every 100 Hours | Every 250 Hours | Yearly | Lubricant Type |
|----------------------|-----------------------|----------------------|----------------------|-----------------------|-----------------------|----------|-------------------|
| ● Charge Batteries | AR | | I | | | C | |
| Belt Tension | | | | | | I-A | |
| Air Cleaner | I | | C | | | | |
| ▼ Combustion Chamber | | | | | C | | |
| ▼ Engine Oil | I | R* | | R | | | II |
| ▼ Fuel Line | | | | | | R - 2yrs | |
| ▼ Fuel Strainer | | | | C | | | |
| ▼ Spark Plug | | | | A/R | | | |
| ▼ Valve Clearance | | | | | A | | |
| Grease Locations | | | | | | | |
| L1 - L5 | | | L | | | L | I |
| L6-L7 | | | | | | L | I |

A - Adjust C - Clean I - Inspect L - Lubricate R - Replace AR - As Required

* Indicates initial service for new machines.

I Manual grease gun with NLGI Grade 2 (Service Class LB).

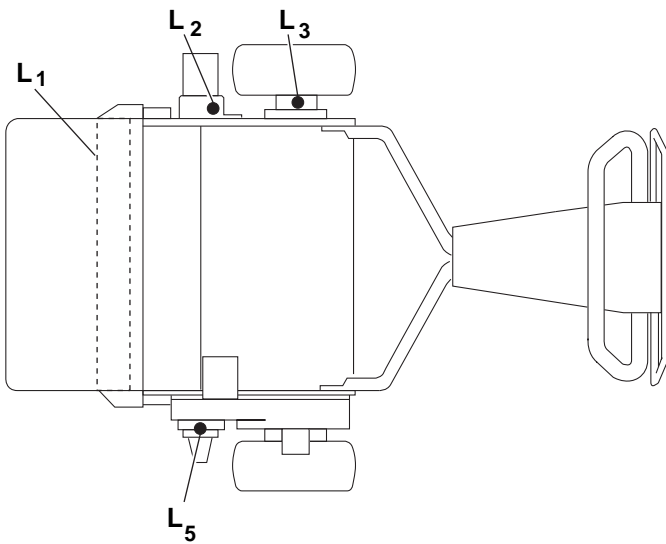
II Engine Oil - See 9.2

● Battery Power Module

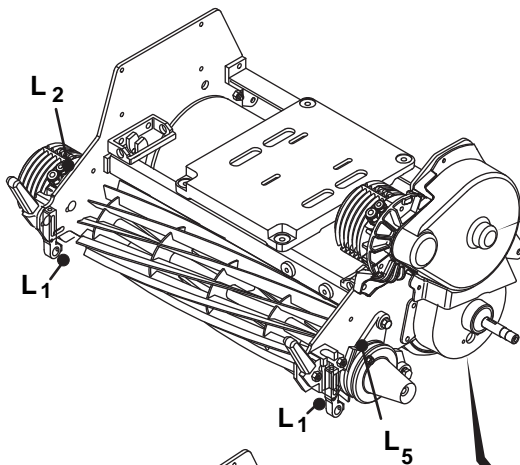
▼ Gen-Set Power Module

12 MAINTENANCE & LUBRICATION CHARTS

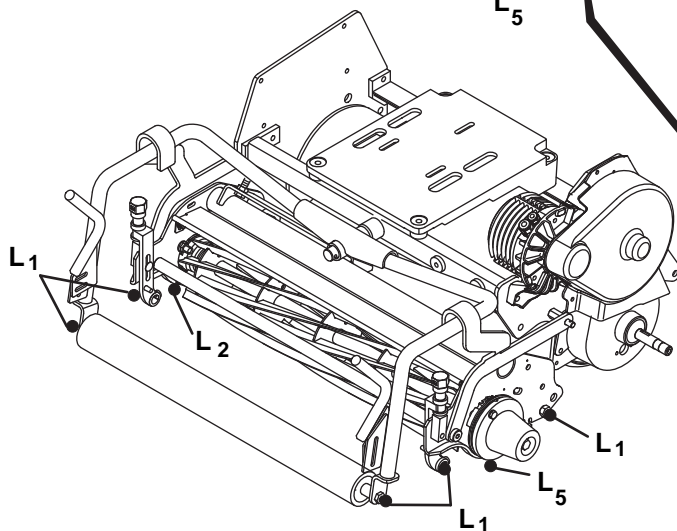
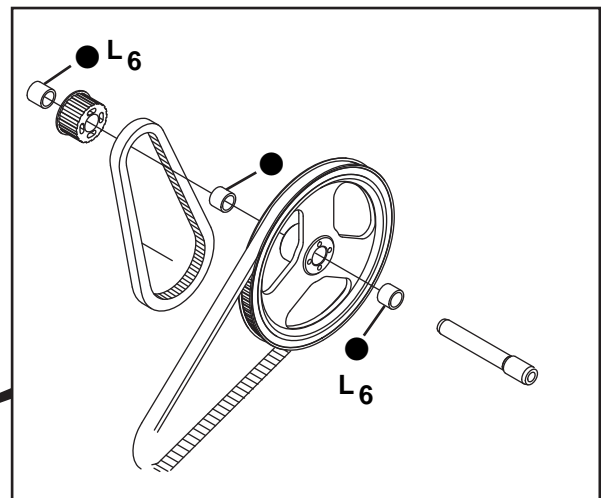
12.3 LUBRICATION CHART



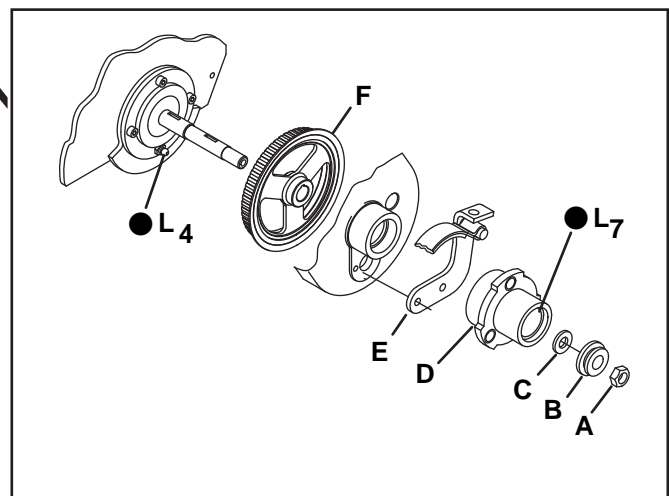
- L1 - Reel Roller Bearing
- L2 - Reel Motor Bearing Housing
- L3 - Right Side Traction Drum Bearing Housing
- L4 - Left Side Traction Drum Bearing Housing
- L5 - Reel Bearing Housing
- L6 - Pulley Shaft Bearing
- L7 - Hub



Pulley Shaft Assembly



Wheel Hub Assembly



13.1 HOW TO USE THE PARTS CATALOG

Abbreviations

N/S - Not serviced separately, can only be obtained by ordering main component or kit.

AR -Variable quantity or measurement is required to obtain correct adjustment.

Symbols such as ●, next to the item number, indicate that a note exists which contain additional information important in ordering that part.

Indented Items

Indented items indicate component parts that are included as part of an assembly or another component. These parts can be ordered separately or as part of the main component.

| Item | Part No. | Qty | Description | Serial Numbers/Notes |
|------|----------|-----|-----------------------------|---|
| ● 1 | 123456 | 1 | Mount, Valve | <i>Indicates a piece part</i> |
| 2 | 789012 | 1 | Valve, Lift | <i>Includes Items 2 and 3</i> |
| 3 | 345678 | 1 | • Handle | <i>Serviced part included with Item 2</i> |
| 4 | N/S | 1 | • Seal Kit | <i>Non serviced part included with Item 2</i> |
| 5 | 901234 | 1 | Screw, 1/4-20 x 2" Hex Head | |

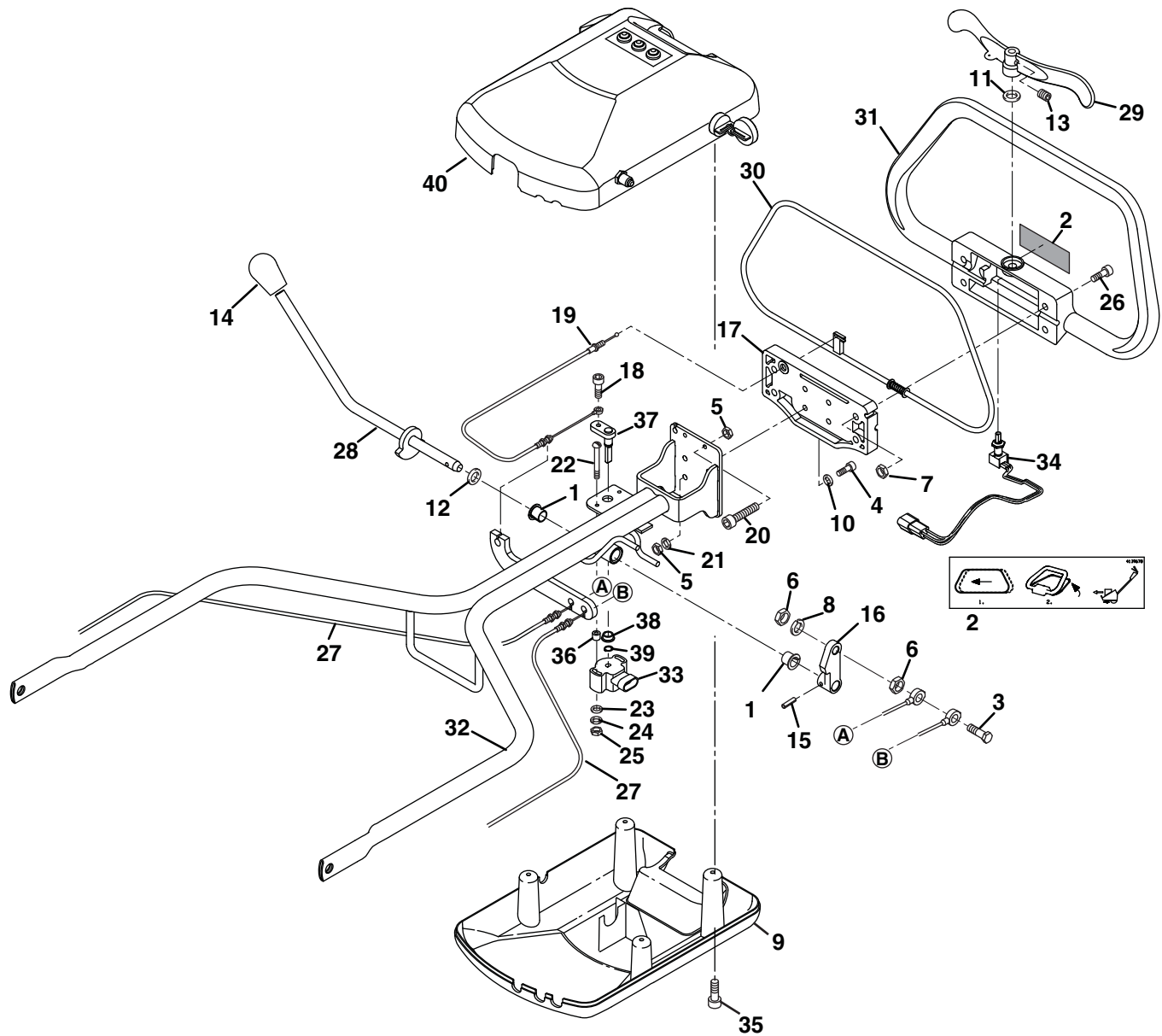
13.2 TO ORDER PARTS

1. Write your **full** name and **complete** address on the order.
2. Explain where and how to make shipment.
3. Give product number, name and serial number that is stamped on the name plate or serial plate of your product.
4. Order by the quantity desired, the part number, and description of the part as given in the parts list.
5. Send or bring the order to an authorized Jacobsen Distributor.
6. Inspect all shipments on receipt. If any parts are damaged or missing, file a claim with the carrier before accepting.
7. Do not return material without a letter of explanation, listing the parts being returned. Transportation charges must be prepaid.

Use of other than Jacobsen authorized parts will void the warranty.

13.3 PARTS CATALOG TABLE OF CONTENTS

| | | |
|------|----------------------------------|----|
| 1.1 | Handle and Controls | 54 |
| 2.1 | Handle Attach | 56 |
| 3.1 | Handle Cover | 57 |
| 4.1 | Power Module Mounting Plate | 58 |
| 5.1 | Frame Assembly | 60 |
| 6.1 | Frame Assembly | 62 |
| 7.1 | Lower Unit | 64 |
| 8.1 | Reel | 66 |
| 9.1 | Grass Shield and Roller Brackets | 68 |
| 10.1 | Floating Head Reel Connection | 70 |
| 11.1 | Outer Reel Assembly | 72 |
| 12.1 | Inner Reel Assembly | 74 |
| 13.1 | Differential and Rollers | 76 |
| 14.1 | Parking Brake and Wheels | 78 |
| 15.1 | Belts and Drive Motors | 80 |
| 16.1 | Clamps and Wire Harness | 82 |
| 17.1 | Genset Power Source | 84 |
| 18.1 | Battery Power Source | 86 |
| 19.1 | Battery Case | 88 |
| 20.1 | Fixed Head Motor Clamp | 90 |
| 21.1 | Floating Head Motor Clamp | 91 |
| 22.1 | Electrical Schematic | 92 |
| 22.1 | Wiring Diagram | 94 |

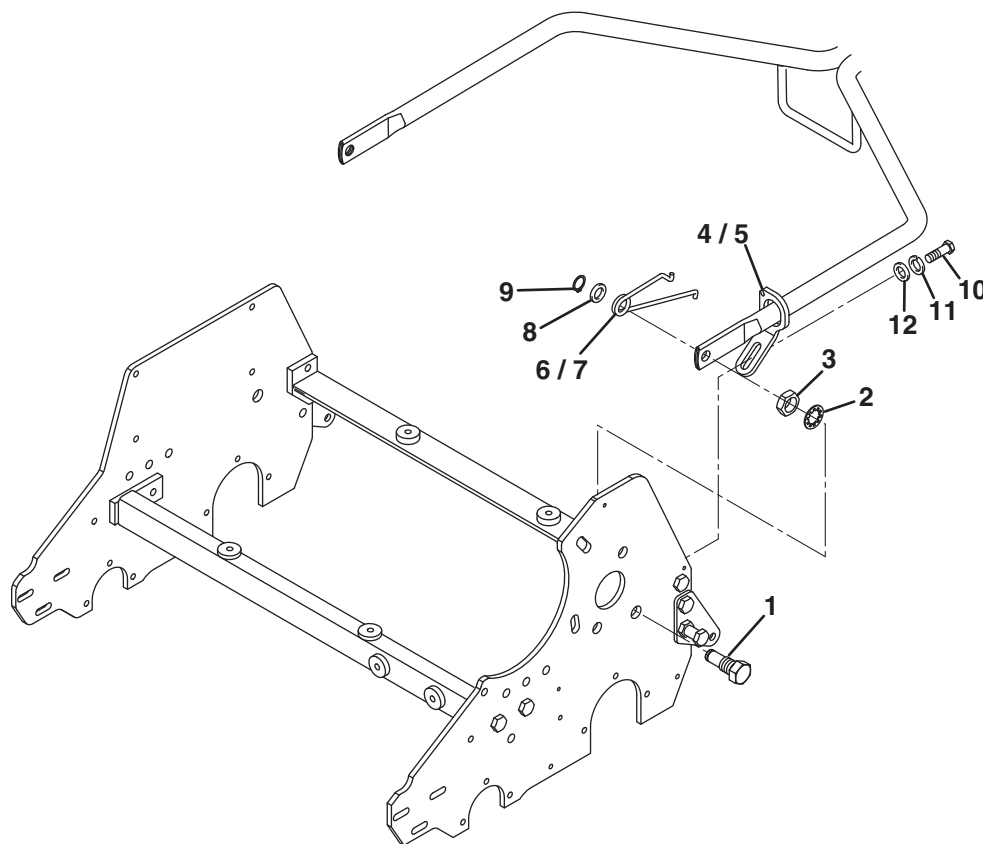


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2.1 Handle Attach

Serial No. All

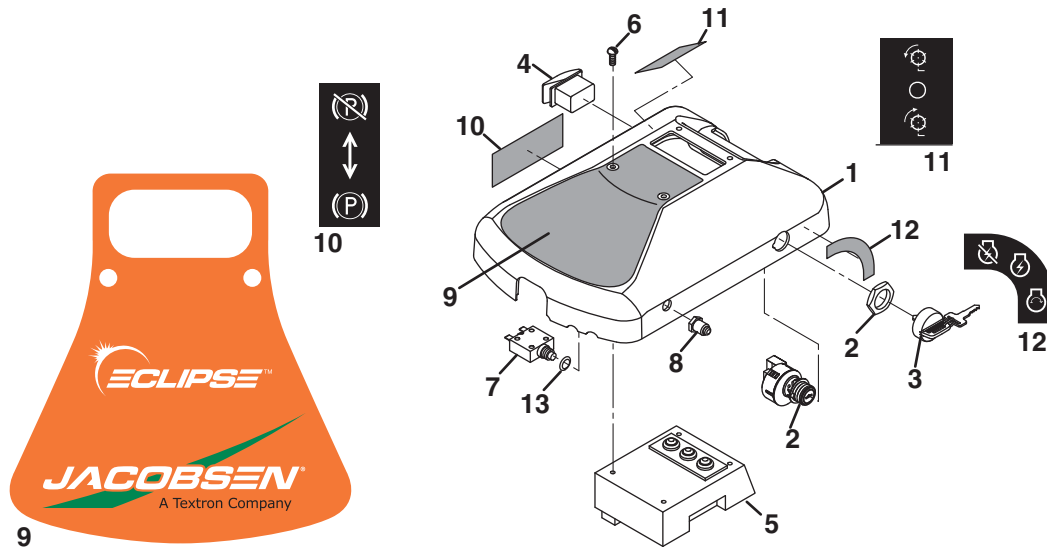


Fixed Head Frame Shown. Floating Head Similar

| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|---------------------------------|----------------------|
| 1 | 2811559 | 2 | Bolt, Handle Mount | |
| 2 | 447224 | 2 | Lockwasher, 5/8" Internal Tooth | |
| 3 | 443828 | 2 | Nut, 5/8-18 Hex Jam | |
| 4 | 4172521 | 1 | Right Side Handle Stop | |
| 5 | 4172520 | 1 | Left Side Handle Stop | |
| 6 | 2809900 | 1 | Left Side Torsion Spring | |
| 7 | 2809901 | 1 | Right Side Torsion Spring | |
| 8 | 455012 | 2 | Flat Washer, 3/4 | |
| 9 | 458006 | 2 | Retaining Ring, 1/2 Truarc | |
| 10 | 400262 | 2 | Screw, 3/8-16 x 1" Hex Head | |
| 11 | 446142 | 2 | Lockwasher, 3/8 Heavy | |
| 12 | 453011 | 2 | Flat Washer, 3/8 | |

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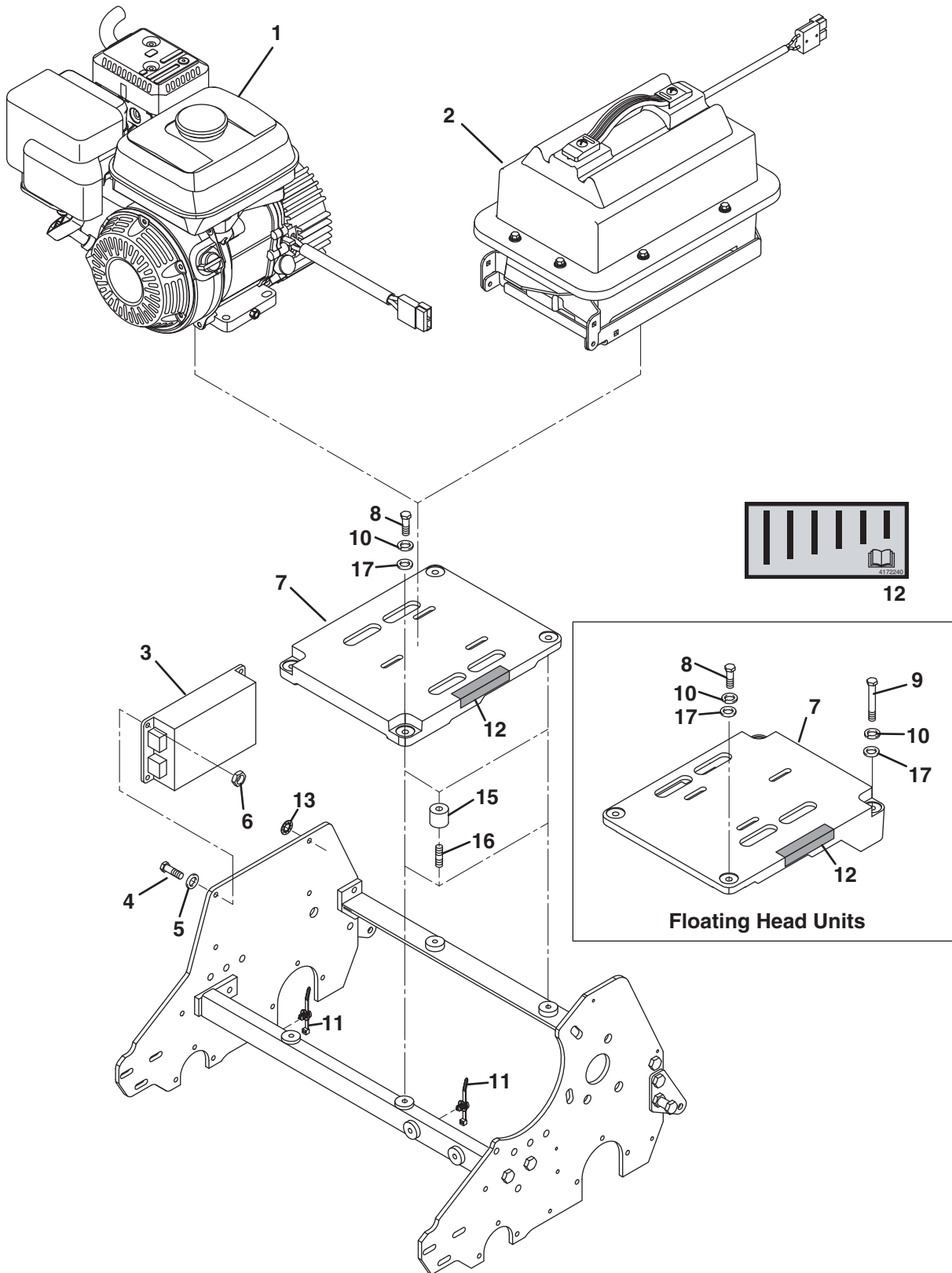
3.1 Handle Cover



| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|--|------|-----------------------------|---|
| 1 | 4174641 | 1 | Front Cover | REFERENCE SW1, See 22.1 REFERENCE SW2, See 22.1 REFERENCE U2, See 22.1 REFERENCE CB1, See 22.1 |
| 2 | 4165020 | 1 | Key Switch | |
| 3 | 4131618 | 1 | • Key | |
| 4 | 4165062 | 1 | Switch, Rocker | |
| 5 | 4251470 | 1 | LCD Display | |
| 6 | 402056 | 4 | Screw, #8-32 x 3/8" Slotted | |
| ● 7 | 4169341 | 1 | 25 Amp Circuit Breaker | |
| 8 | 4180300 | 1 | Boot Protector | |
| 9 | 4176800 | 1 | Decal, Eclipse 100 Series | |
| 10 | 3002753 | 1 | Decal, Parking Brake | |
| 11 | 4165241 | 1 | Decal, Reel | |
| 12 | 4104282 | 1 | Decal, Key Switch | |
| 13 | 4180321 | 1 | Palnut | |
| ● | Included in Power Module Harness 4165060 | | | |

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4.1 Power Module Mounting Plate



Fixed Head Frame Shown. Floating Head Similar

| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|-----------------------------------|--|
| 1 | 63305 | 1 | Gen-Set Power Module | See 19.1 |
| 2 | 63306 | 1 | Battery Power Module | See 20.1 |
| 3 | 4166900 | 1 | Controller, Eclipse | |
| 4 | 400110 | 4 | Screw, 1/4-20 x 1" Hex Head | |
| 5 | 453023 | 4 | Flat Washer, 1/4 | |
| 6 | 444708 | 4 | Locknut, 1/4-20 Center | |
| 7 | 4165263 | 1 | Mount, Fixed Head Power Module | Used on 63300, 63302, 63304, 63311, 63313, 63315, 63325, 63327, 63329, 63331 |
| 7 | 4164220 | 1 | Mount, Floating Head Power Module | Used on 63301, 63303, 63312, 63314, 63326, 63328, 63330, 63332 |
| 8 | 400228 | 4 | Screw, 5/16-24 x 1-1/4" Hex Head | Used on 63300, 63302, 63304, 63311, 63313, 63315, 63329, 63331 |
| 8 | 400226 | 2 | Screw, 5/16-24 x 1" Hex Head | Used on 63301, 63303, 63312, 63314, 63330, 63332 |
| 8 | 400186 | 4 | Screw, 5/16-18 x 7/8" Hex Head | Used on 63325 and 63327 |
| 8 | 400186 | 2 | Screw, 5/16-18 x 7/8" Hex Head | Used on 63326 and 63328 |
| 9 | 400244 | 2 | Screw, 5/16-24 x 2-3/4" Hex Head | Used on 63301, 63303, 63312, 63314, 63330, 63332 Only |
| 10 | 400198 | 2 | Screw, 5/16-18 x 2-1/4" Hex Head | Used on 63326 and 63328 Only |
| 11 | 446136 | 4 | Lockwasher, 5/16 | |
| 12 | 4167640 | 2 | Cable Tie, Tree | |
| 13 | 4193060 | 1 | Decal, Front Roller Weight | |
| 14 | 447212 | 1 | Lockwasher, 1/4 Internal Tooth | |
| 15 | 4255550 | 4 | Female-Female Iso Mount | Used on 63325, 63326, 63327, and 63328 Only |
| 16 | 4255530 | 4 | Stud, 5/16-18 x 5/16-24 x 1" | Used on 63325, 63326, 63327, and 63328 Only |
| 17 | 453009 | 4 | Flat Washer, 5/16 | Used on 63325, 63326, 63327, and 63328 Only |

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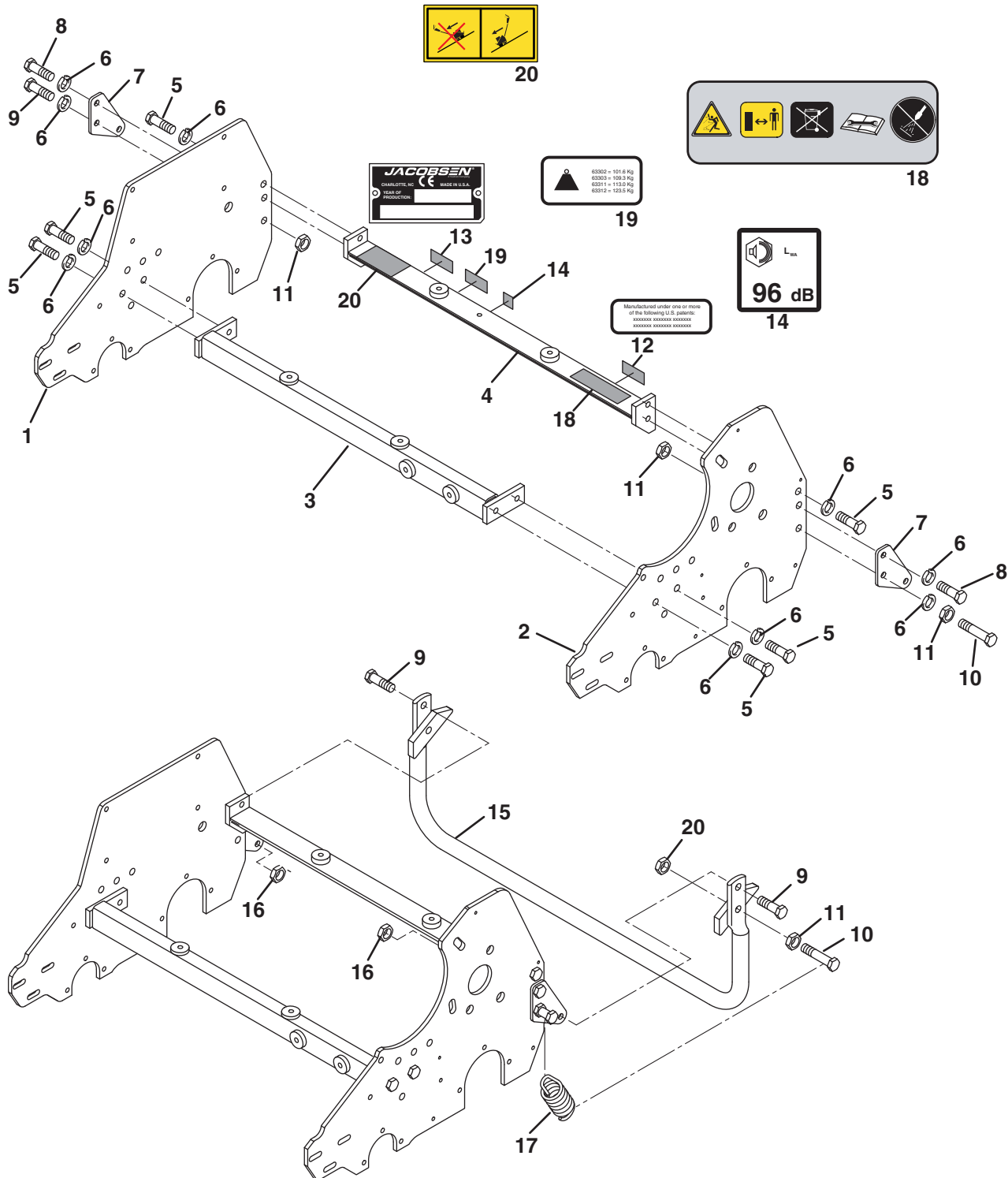
5.1 Frame Assembly

Fixed Head Units

Serial No. 63300 - All
Serial No. 63302 - All
Serial No. 63304 - All
Serial No. 63311 - All

Serial No. 63313 - All
Serial No. 63315 - All
Serial No. 63325 - All
Serial No. 63327 - All

Serial No. 63329 - All
Serial No. 63331 - All



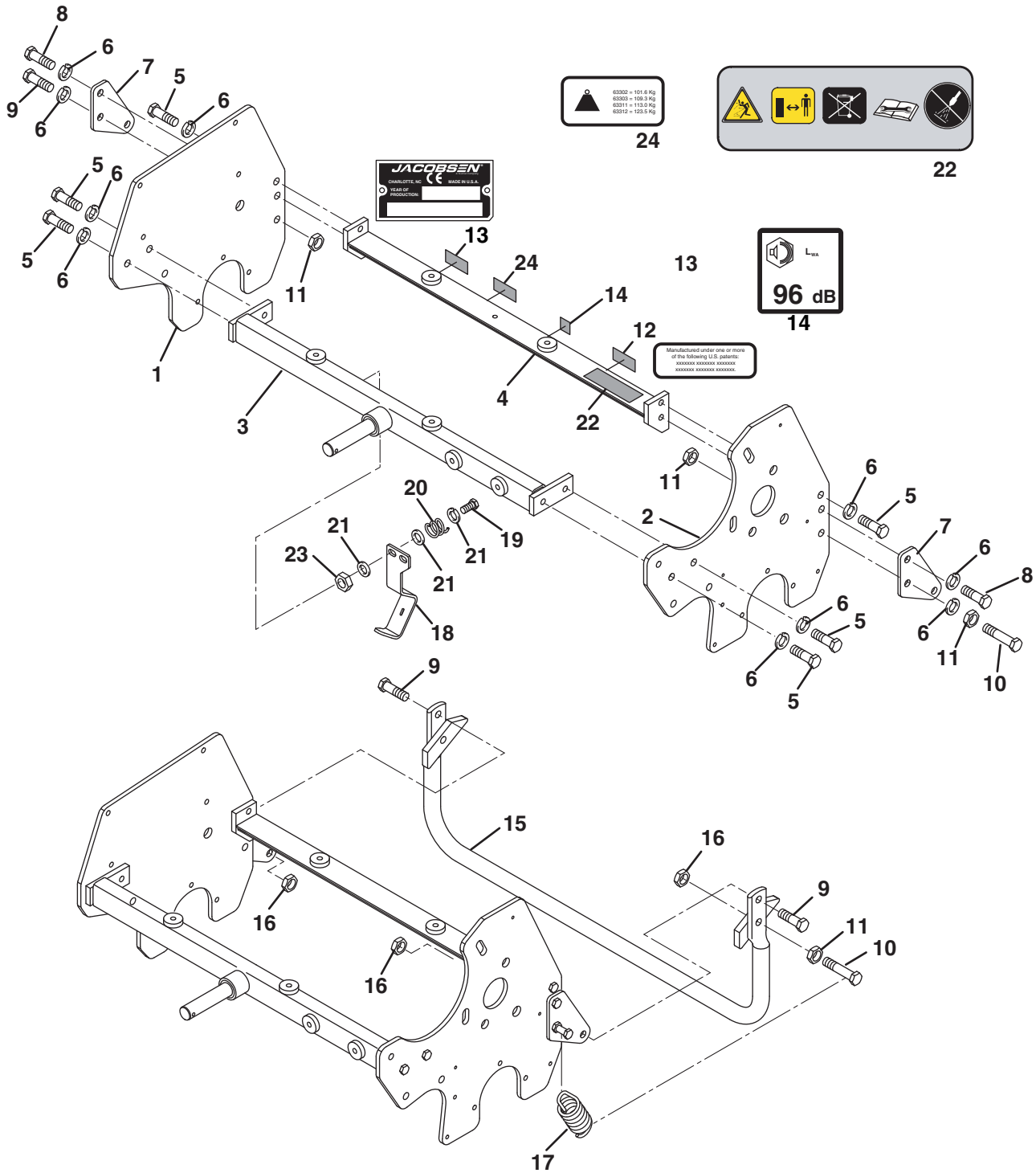
| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|---------------------------------|---|
| 1 | 4208160 | 1 | Frame, R.H. Side | Used on 63300, 63313, 63327, and 63331 Used on 63302, 63311, 63325, and 63329 Used on 63304 and 63315 Used on 63300, 63313, 63327, and 63331 Used on 63302, 63311, 63325, and 63329 Used on 63304 and 63315 Used on 63300, 63313, 63327, and 63331 Used on 63302, 63311, 63325, and 63329 Used on 63304 and 63315 |
| 2 | 4208162 | 1 | Frame, L.H. Side | |
| 3 | 4167383 | 1 | 18" Front Crossbar | |
| 3 | 4165280 | 1 | 22" Front Crossbar | |
| 3 | 4168022 | 1 | 26" Front Crossbar | |
| 4 | 4168401 | 1 | 18" Rear Crossbar | |
| 4 | 4165281 | 1 | 22" Rear Crossbar | |
| 4 | 4168023 | 1 | 26" Rear Crossbar | |
| 5 | 400258 | 6 | Screw, 3/8-16 x 3/4" Hex Head | |
| 6 | 446142 | 10 | Lockwasher, 3/8 Heavy | |
| 7 | 366796 | 2 | Kickstand, Mounting Bracket | |
| 8 | 400262 | 2 | Screw, 3/8-16 x 1" Hex Head | |
| 9 | 400260 | 3 | Screw, 3/8-16 x 7/8" Hex Head | |
| 10 | 400268 | 2 | Screw, 3/8-16 x 1-3/4" Hex Head | |
| 11 | 443810 | 4 | Nut, 3/8-16 Hex Jam | |
| 12 | 4127931 | 1 | Decal, Patent | |
| 13 | REF | 1 | Serial Plate | |
| 14 | 4117466 | 1 | Decal, 96 db Noise | |
| 15 | 1000018 | 1 | 18" Kickstand | |
| 15 | 132674 | 1 | 22" Kickstand | |
| 15 | 1000019 | 1 | 26" Kickstand | |
| 16 | 444850 | 3 | Nut, 3/8-16 Center Lock Jam | |
| 17 | 364164 | 1 | Spring | |
| 18 | 4169840 | 1 | Decal, Danger | |
| 19 | 4174680 | 1 | Decal, Weight | |
| 20 | | 1 | Decal, Ramp Warning | |

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6.1 Frame Assembly

Floating Head Units

| | |
|------------------------|------------------------|
| Serial No. 63301 - All | Serial No. 63326 - All |
| Serial No. 63303 - All | Serial No. 63328 - All |
| Serial No. 63312 - All | Serial No. 63330 - All |
| Serial No. 63314 - All | Serial No. 63332 - All |



| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|------------------|--|
| 1 | 4140145 | 1 | Frame, R.H. Side | Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 63312, 63326, and 63330 Used on 63301, 63314, 63328, and 63332 Used on 63303, 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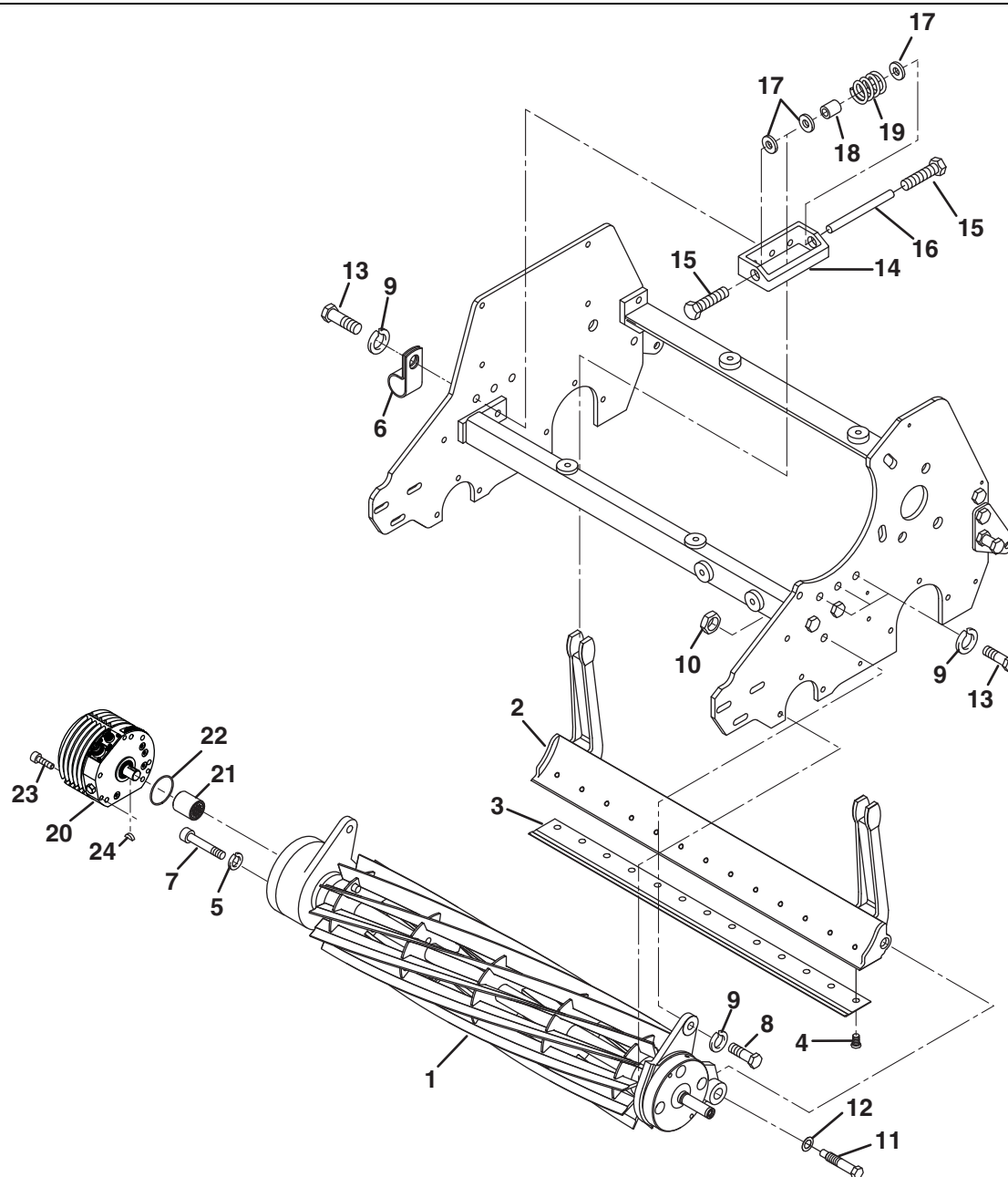
7.1 Lower Unit

Fixed Head Units

Serial No. 63300 - All
Serial No. 63302 - All
Serial No. 63304 - All
Serial No. 63311 - All

Serial No. 63313 - All
Serial No. 63315 - All
Serial No. 63325 - All
Serial No. 63327 - All

Serial No. 63329 - All
Serial No. 63331 - All



Standard Style Bedknives (Secured with screws)

| Part Number | Description |
|-------------|----------------------|
| 5000098 | 18" Low Profile |
| ● 5002888 | 18" Super Tournament |
| 503478 | 22" Low Profile |
| 503477 | 22" High Profile |
| ● 5002887 | 22" Super Tournament |
| ● 5000141 | 26" Heavy Section |

● Standard Bedknife

Optional MagKnife Bedknives

| Part Number | Description |
|-------------|----------------------|
| 4131005 | 22" Medium Section |
| 4131369 | 22" High Profile |
| 4131001 | 22" Low Profile |
| 4131370 | 22" Tournament |
| 4131003 | 22" Super Tournament |

| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|------------------------------------|-------------------------------|
| 1 | REF | 1 | Reel Assembly | See 8.1 |
| 2 | 5000102 | 1 | Bedknife Backing, 18" | Standard Screw Style Bedknife |
| 2 | 5000457 | 1 | Bedknife Backing, 22" | |
| 2 | 5000412 | 1 | Bedknife Backing, 526 Standard | |
| 2 | N/S | 1 | Bedknife Backing, Magknife | Magknife Option |
| 3 | REF | 1 | Bedknife | See Chart |
| 4 | 3009138 | 13 | Screw, 1/4-20 x 3/4 Soc. Hd. | Reference M2, See 22.1 |
| 5 | 446136 | 4 | Lockwasher, 5/16 Heavy | |
| 6 | 366424 | 1 | Clamp, Harness | |
| 7 | 434049 | 3 | Screw, 5/16-18 x 2" Socket Hd. | |
| 8 | 400264 | 2 | Screw, 3/8-16 x 1-1/4 Hex Head | |
| 9 | 446142 | 8 | Lockwasher, 3/8 Heavy | |
| 10 | 443110 | 2 | Nut, 3/8-16 Hex | |
| 11 | 365501 | 2 | Bolt, Bedknife Shoe | |
| 12 | 454017 | 2 | Shim, Bedknife Shoe | |
| 13 | 400258 | 6 | Screw, 3/8-16 x 3/4" Hex Head | |
| 14 | 3001600 | 2 | Bedknife Block | |
| 15 | 366726 | 4 | Bolt, Special | |
| 16 | 366727 | 2 | Rod | |
| 17 | 366653 | 6 | Spacer | |
| 18 | 367512 | 2 | Spacer | |
| 19 | 366709 | 2 | Spring | |
| 20 | 4207260 | 1 | Motor, Brushless Bi-Directional | |
| 21 | 2812384 | 1 | Coupler Assembly | |
| 22 | 4104720 | 1 | O-Ring | |
| 23 | 434010 | 3 | Screw, 1/4-20 x 1-3/4" Socket Head | |
| 24 | 463029 | 1 | Key, Woodruff | |

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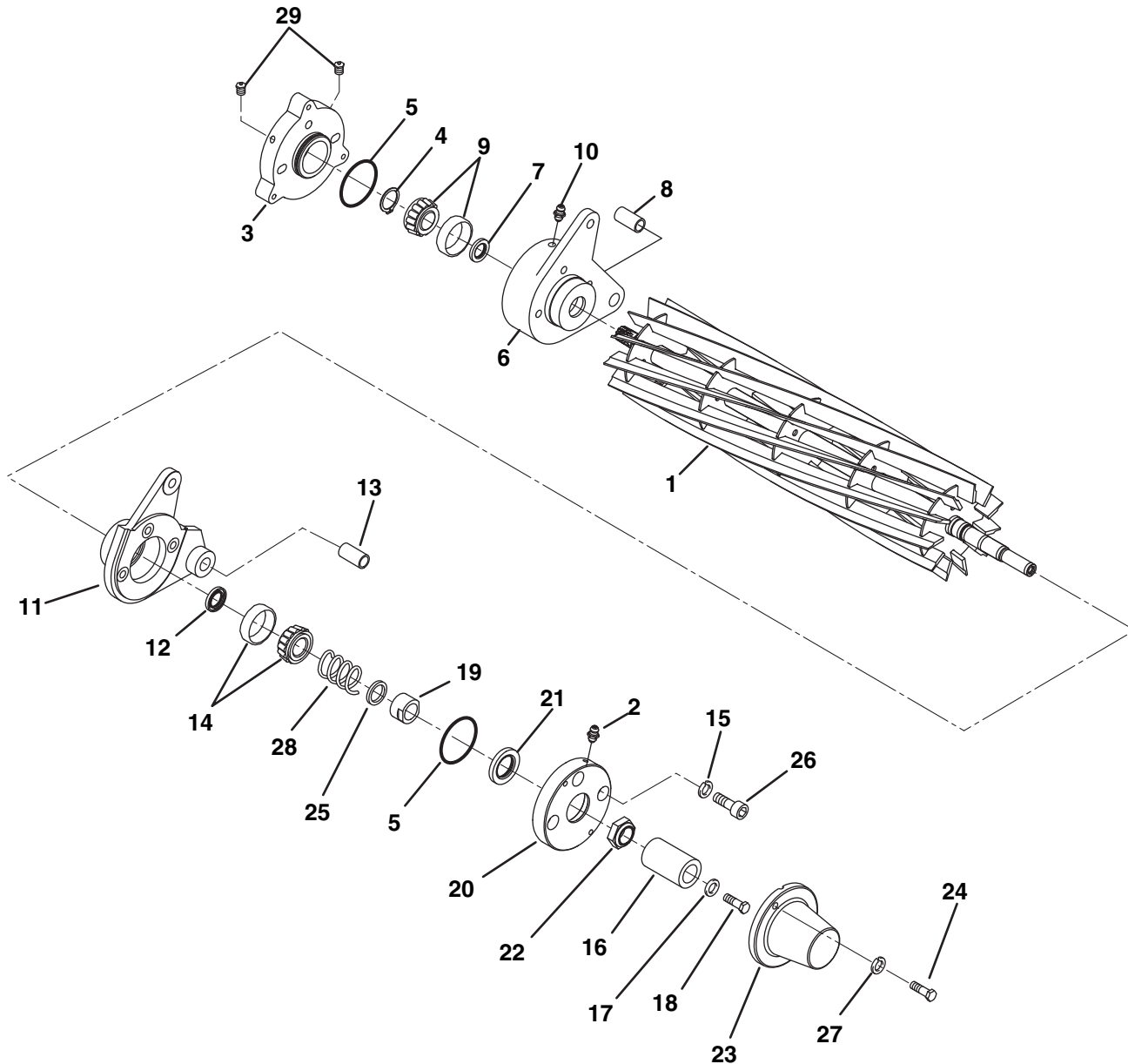
8.1 Reel

Fixed Head Units

Serial No. 63300 - All
Serial No. 63302 - All
Serial No. 63304 - All
Serial No. 63311 - All

Serial No. 63313 - All
Serial No. 63315 - All
Serial No. 63325 - All
Serial No. 63327 - All

Serial No. 63329 - All
Serial No. 63331 - All



| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|-------------------------------------|-------------------------|
| 1 | 4225502 | 1 | 15 Blade 18" Reel | Used on 63327 and 63331 |
| 1 | 4223946 | 1 | 15 Blade 22" Reel | Used on 63325 and 63329 |
| 1 | 4170202 | 1 | 11 Blade 18" Reel | Used on 63300 and 63313 |
| 1 | 4172945 | 1 | 11 Blade 22" Reel | Used on 63302 and 63311 |
| 1 | 4170203 | 1 | 7 Blade 26" Reel | Used on 63304 and 63315 |
| 2 | 471214 | 2 | Grease Fitting | |
| 3 | 4167541 | 1 | Adaptor, Motor | |
| 4 | 458013 | 1 | Snap Ring | |
| 5 | 4104720 | 2 | O-Ring | |
| 6 | 4179720 | 1 | Bearing Housing | |
| 7 | 366650 | 1 | • Seal | |
| 8 | 545940 | 1 | • Bushing | |
| 9 | 500534 | 1 | • Bearing Cup and Cone | |
| 10 | 4128725 | 1 | • Grease Fitting | |
| 11 | 4105281 | 1 | Bearing Housing | |
| 12 | 366650 | 1 | • Grease Seal | |
| 13 | 545940 | 1 | • Bushing | |
| 14 | 500534 | 1 | • Bearing Cup and Cone | |
| 15 | 446136 | 3 | Lockwasher, 5/16 Heavy | |
| 16 | 367164 | 1 | Spacer, Reel Shaft | |
| 17 | 453011 | 1 | Flat Washer, 3/8 | |
| 18 | 400294 | 1 | Screw, 3/8-24 x 3/4" Hex Head | |
| 19 | 364900 | 1 | Nut | |
| 20 | 4179780 | 1 | Seal Carrier | |
| 21 | 366648 | 1 | Grease Seal | |
| 22 | 367029 | 1 | Nut, 3/4-16 Hex Nylock Jam | |
| 23 | 338675 | 1 | Cover | |
| 24 | 400108 | 2 | Screw, 1/4-20 x 3/4" Hex Head | |
| 25 | 304745 | 1 | Washer | |
| 26 | 434036 | 3 | Screw, 5/16-18 x 1-1/4" Socket Head | |
| 27 | 446130 | 2 | Lockwasher, 1/4 Heavy | |
| 28 | 363047 | 1 | Spring | |
| 29 | 471242 | 2 | Fitting, Relief | |

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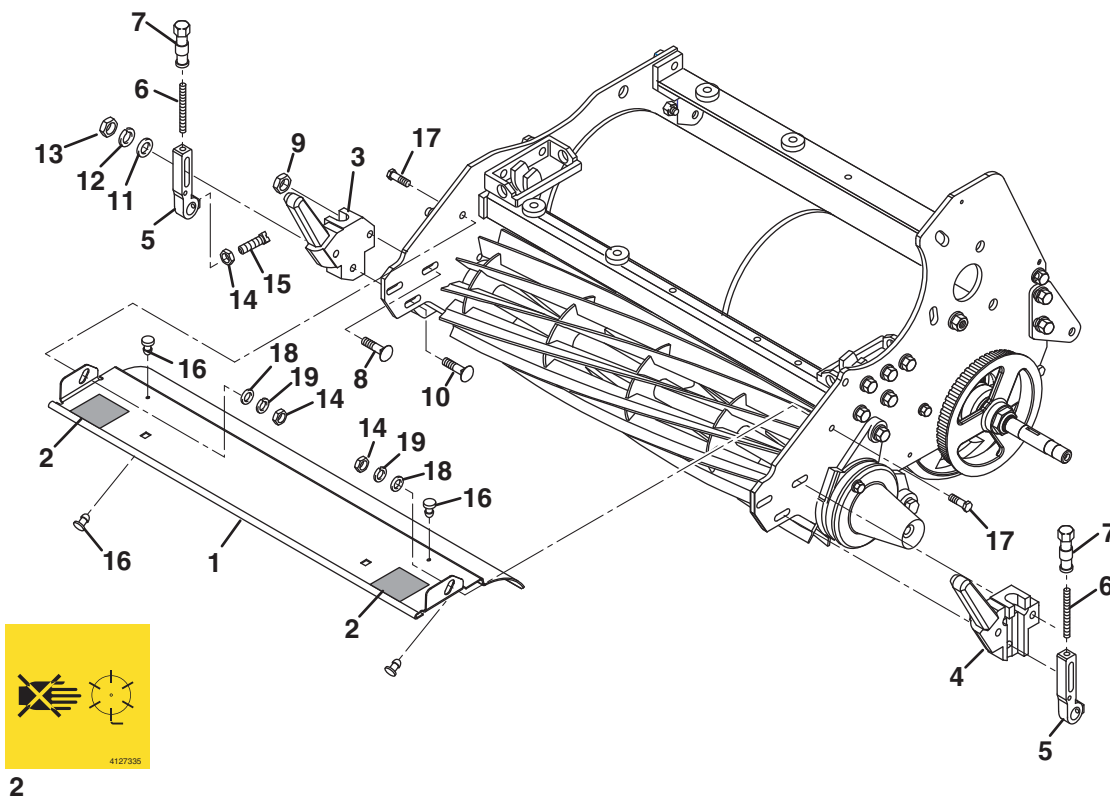
9.1 Grass Shield and Roller Brackets

Fixed Head Units Only

Serial No. 63300 - All
Serial No. 63302 - All
Serial No. 63304 - All
Serial No. 63311 - All

Serial No. 63313 - All
Serial No. 63315 - All
Serial No. 63325 - All
Serial No. 63327 - All

Serial No. 63329 - All
Serial No. 63331 - All



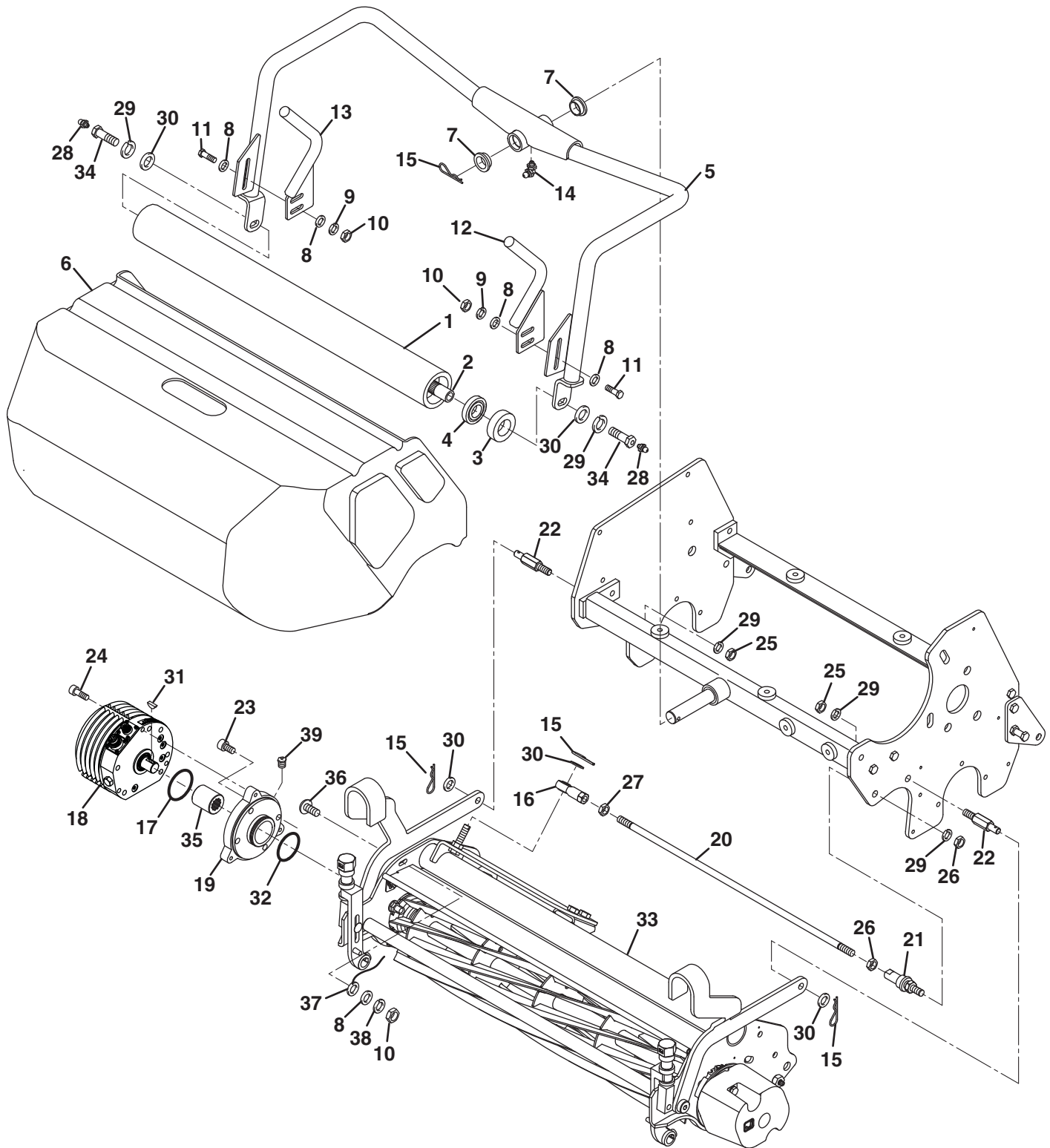
| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|------------------------------------|--|
| 1 | 4139661 | 1 | Grass Shield, 18 Inch | Used on 63300, 63313, 63327, and 63331 |
| 1 | 4139660 | 1 | Grass Shield, 22 Inch | Used on 63302, 63311, 63325, and 63329 |
| 1 | 4139662 | 1 | Grass Shield, 26 Inch | Used on 63304 and 63315 |
| 2 | 4127335 | 2 | • Decal, Danger | |
| 3 | 241828 | 1 | Bracket, Catcher Mounting, R.H. | |
| 4 | 241827 | 1 | Bracket, Catcher Mounting, L.H. | |
| 5 | 2000072 | 2 | Bracket, Roller Adjusting | |
| 6 | 343616 | 2 | Stud, Front Roller Adjusting | |
| 7 | 3005692 | 2 | Adjusting Knob | |
| 8 | 441677 | 4 | Carriage Bolt 5/16-18 x 1-1/2" | |
| 9 | 444718 | 4 | Locknut, 5/16-18 Center | |
| 10 | 441674 | 2 | Carriage Bolt, 5/16-18 x 1-3/4" | |
| 11 | 364441 | 2 | Spacer | |
| 12 | 446136 | 2 | Lockwasher, 5/16 Heavy | |
| 13 | 443106 | 2 | Nut, 5/16-18 Hex | |
| 14 | 443102 | 4 | Nut, 1/4-20 Hex | |
| 15 | 352737 | 2 | Set Screw, 1/4-20 x 7/8" Square Hd | |
| 16 | 3008974 | 4 | Grommet | |
| 17 | 400112 | 2 | Screw, 1/4-20 x 1" Hex Head | |
| 18 | 453023 | 2 | Flat Washer, 1/4 | |
| 19 | 446130 | 2 | Lockwasher, 1/4 Heavy | |

> Change from previous revision

10.1 Floating Head Reel Connection

Floating Head Units Only

| | |
|------------------------|------------------------|
| Serial No. 63301 - All | Serial No. 63326 - All |
| Serial No. 63303 - All | Serial No. 63328 - All |
| Serial No. 63312 - All | Serial No. 63330 - All |
| Serial No. 63314 - All | Serial No. 63332 - All |



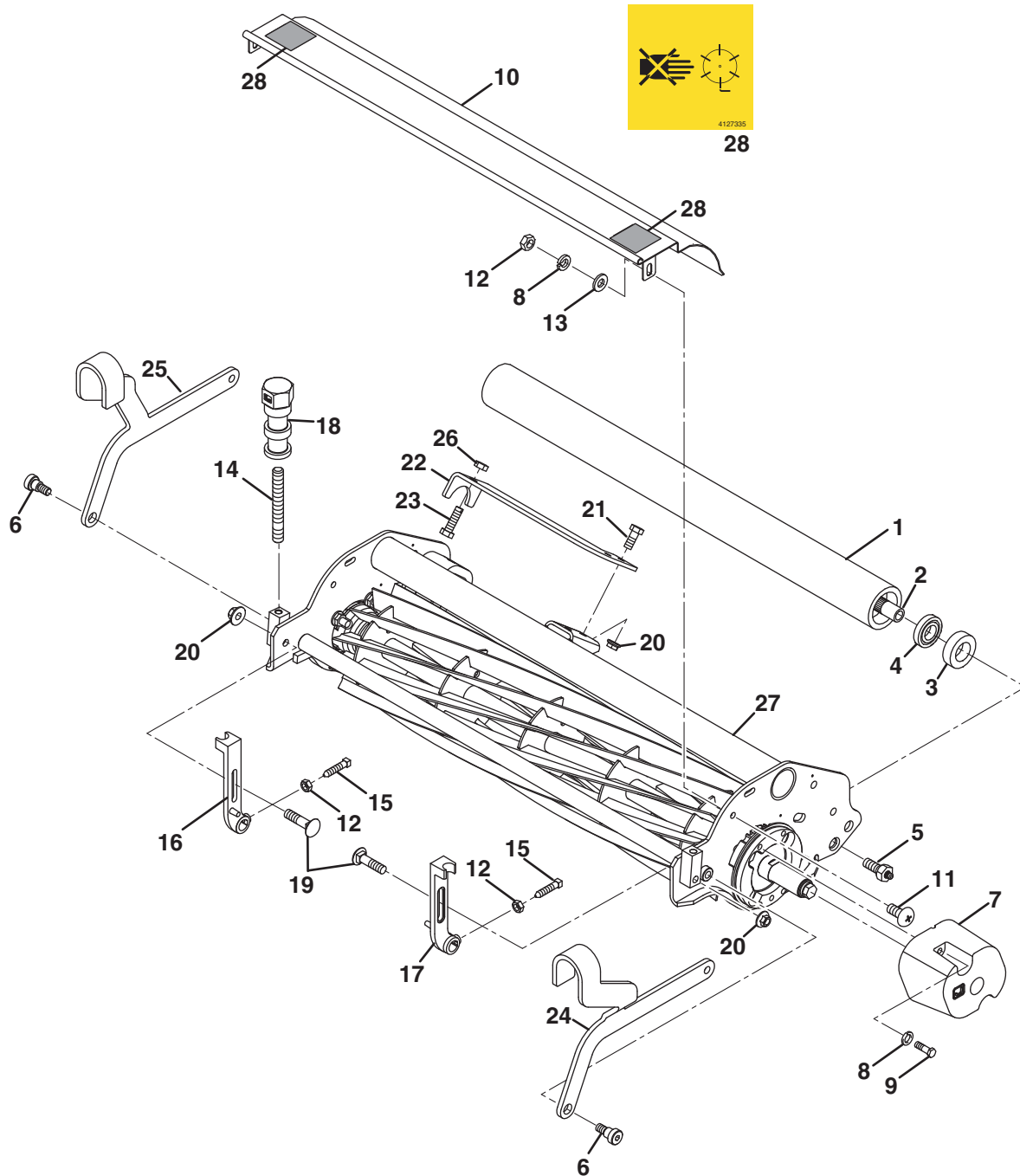
| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|------------------------------------|------------------------------------|
| 1 | 4108920 | 1 | Rear Roller - 18" | Used on 63301, 63314, 63328, 63332 |
| 1 | 1004990 | 1 | Rear Roller - 22" | Used on 63303, 63312, 63326, 63330 |
| 2 | 4108924 | 1 | • Shaft, 18" | Used on 63301, 63314, 63328, 63332 |
| 2 | 3010422 | 1 | • Shaft, 22" | Used on 63303, 63312, 63326, 63330 |
| 3 | 3010286 | 2 | • Seal | |
| 4 | 3010712 | 2 | • Bearing | |
| 5 | 4168727 | 1 | Roller Mount - 18" | Used on 63301, 63314, 63328, 63332 |
| 5 | 4136994 | 1 | Roller Mount - 22" | Used on 63303, 63312, 63326, 63330 |
| 6 | 4174683 | 1 | Grass Catcher, 18" Floating Head | Used on 63301, 63314, 63328, 63332 |
| 6 | 4114788 | 1 | Grass Catcher, 22" Floating Head | Used on 63303, 63312, 63326, 63330 |
| 7 | 352726 | 2 | Bushing | |
| 8 | 453023 | 9 | Flat Washer, 1/4 | |
| 9 | 446128 | 4 | Lockwasher, 1/4 Med. | |
| 10 | 443102 | 5 | Nut, 1/4-20 Hex | |
| 11 | 400108 | 4 | Screw, 1/4-20 x 3/4" Hex Head | |
| 12 | 4140152 | 1 | Mount, Right Side Catcher | |
| 13 | 4140151 | 1 | Mount, Left Side Catcher | |
| 14 | 471221 | 1 | Grease Fitting, 1/4-28 90° | |
| 15 | 460312 | 4 | Hairpin | |
| 16 | 366317 | 1 | Rod End, 3/8-24 | |
| 17 | 4104720 | 1 | O-Ring, Motor | |
| 18 | 4207260 | 1 | Motor, Brushless Bi-Directional | Reference M2, See 22.1 |
| 19 | 4167400 | 1 | Plate, Motor Adapter | |
| 20 | 4169040 | 1 | Rod, Panhard, 18" | Used on 63301, 63314, 63328, 63332 |
| 20 | 4138778 | 1 | Rod, Panhard, 22" | Used on 63303, 63312, 63326, 63330 |
| 21 | 4140162 | 1 | Ball Joint, Inline Linkage | |
| 22 | 4140166 | 2 | Pin, Threaded | |
| 23 | 434024 | 4 | Screw, 5/16-18 x 3/4" Socket Head | |
| 24 | 434010 | 3 | Screw, 1/4-20 x 1-3/4" Socket Head | |
| 25 | 443110 | 2 | Nut, 3/8-16 Hex | |
| 26 | 443112 | 2 | Nut, 3/8-24 Hex | |
| 27 | 445785 | 1 | Nut, 3/8-24 Left Hand Hex | |
| 28 | 471214 | 2 | Grease Fitting | |
| 29 | 446142 | 5 | Lockwasher, 3/8 Heavy | |
| 30 | 453011 | 5 | Flat Washer, 3/8 | |
| 31 | 463029 | 1 | Key, Woodruff | |
| 32 | 845279 | 1 | Seal, O-Ring | |
| 33 | REF | 1 | Reel Assembly | See 11.1 |
| 34 | 4156930 | 2 | Screw, 3/8-24 x 1" Special | |
| 35 | 2812384 | 1 | Coupler | |
| 36 | 403782 | 1 | Screw, 1/4-20 x 3/4" Truss Head | |
| 37 | REF | 1 | Reel Ground Wire | Part of Harness 4165060 |
| 38 | 446130 | 1 | Lockwasher, 1/4 Heavy | |
| 39 | 417242 | 1 | Fitting, Relief | |

> Change from previous revision

11.1 Outer Reel Assembly

Floating Head Units Only

| | |
|------------------------|------------------------|
| Serial No. 63301 - All | Serial No. 63326 - All |
| Serial No. 63303 - All | Serial No. 63328 - All |
| Serial No. 63312 - All | Serial No. 63330 - All |
| Serial No. 63314 - All | Serial No. 63332 - All |



| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|---------------------------------|--|
| 1 | 4108920 | 1 | Rear Roller, 18" | Used on 63301, 63314, 63328, and 63332 |
| 1 | 1004990 | 1 | Rear Roller, 22" | Used on 63303, 63312, 63326, and 63330 |
| 2 | 4108924 | 1 | • Shaft, 18" Roller | Used on 63301, 63314, 63328, and 63332 |
| 2 | 3010422 | 1 | • Shaft, 22" Roller | Used on 63303, 63312, 63326, and 63330 |
| 3 | 3010286 | 2 | • Seal | |
| 4 | 3010712 | 2 | • Bearing | |
| 5 | 1002224 | 2 | Zerk Bolt | |
| 6 | 365246 | 2 | Shoulder Bolt | |
| 7 | 4171380 | 1 | Casting, Counterweight | |
| 8 | 446130 | 4 | Lockwasher, 1/4 Heavy | |
| 9 | 400118 | 2 | Screw, 1/4-20 x 1-3/4" Hex Head | |
| 10 | 2811027 | 1 | Shield, Reel, 18" | Used on 63301, 63314, 63328, and 63332 |
| 10 | 4174640 | 1 | Shield, Reel, 22" | Used on 63303, 63312, 63326, and 63330 |
| 11 | 403782 | 2 | Screw, 1/4-20 x 3/4" Truss Head | |
| 12 | 443102 | 4 | Nut, 1/4-20 Hex | |
| 13 | 453023 | 2 | Flat Washer, 1/4 | |
| 14 | 343616 | 2 | Stud | |
| 15 | 352737 | 2 | Screw, 1/4-20 x 7/8" Sq Hd Set | |
| 16 | 3008438 | 1 | Roller Bracket | |
| 17 | 3008439 | 1 | Roller Bracket | |
| 18 | 3005692 | 2 | Knob, Front Roller Adjusting | |
| 19 | 441674 | 2 | Carriage Bolt, 5/16-18 x 1-3/4" | |
| 20 | 445795 | 4 | Nut, 5/16-18 Spiralock Flange | |
| 21 | 400184 | 2 | Screw, 5/16-18 x 3/4" Hex Head | |
| 22 | 4140163 | 1 | Bracket, Panhard Rod | |
| 23 | 4140164 | 1 | Screw, 3/8-16 x 1-1/4 Special | |
| 24 | 4140284 | 1 | Bar, Left Support | |
| 25 | 4140285 | 1 | Bar, Right Support | |
| 26 | 443810 | 1 | Nut, 3/8-16 Hex Jam | |
| 27 | N/S | 1 | Inner Reel Assembly | See 12.1 |
| 28 | 4127335 | 2 | Decal, Danger | |

> Change from previous revision

12.1 Inner Reel Assembly

Floating Head Units Only

Serial No. 63301 - All

Serial No. 63303 - All

Serial No. 63312 - All

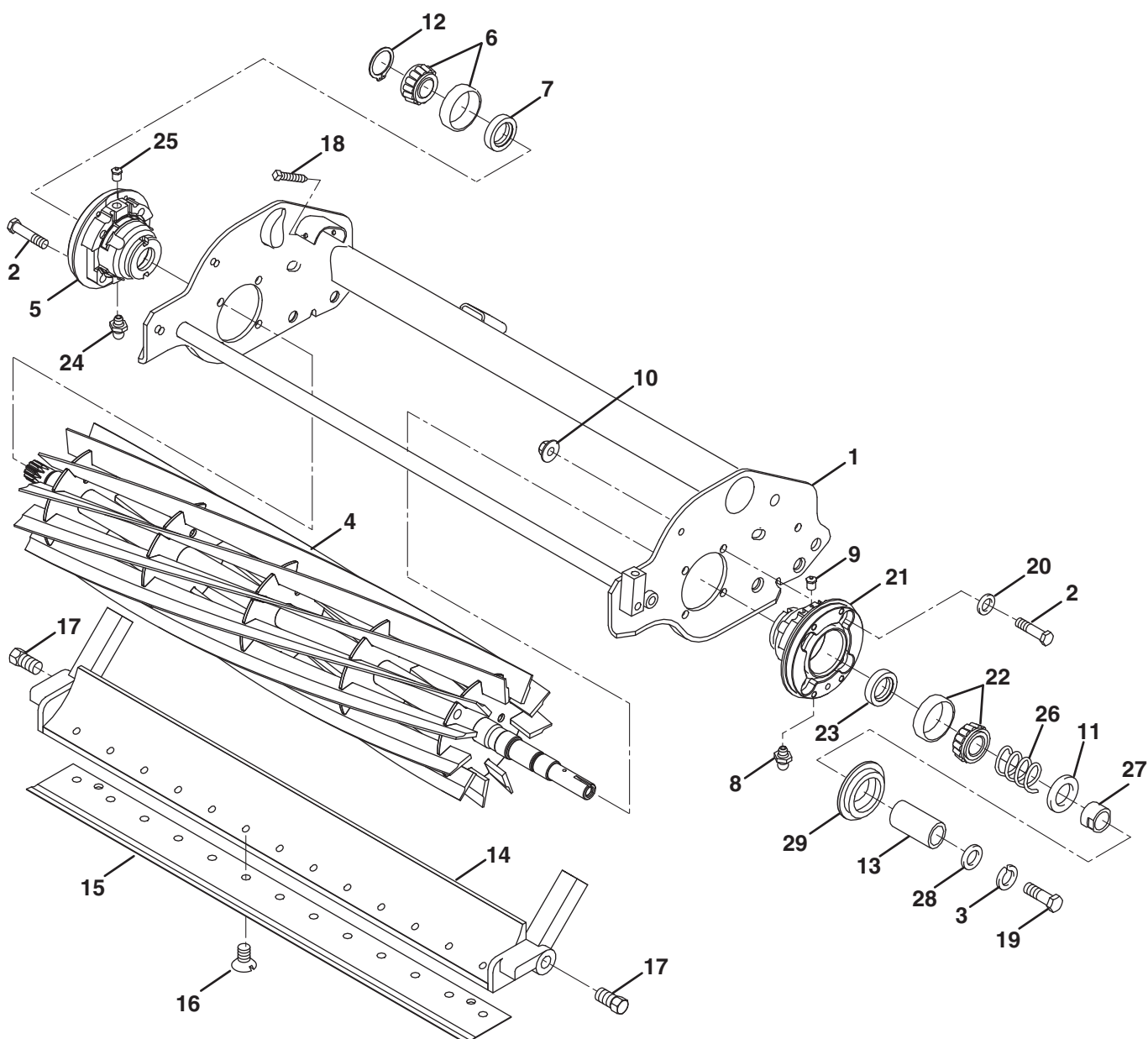
Serial No. 63314 - All

Serial No. 63326 - All

Serial No. 63328 - All

Serial No. 63330 - All

Serial No. 63332 - All



Standard Style Bedknives (Secured with screws)

| Part Number | Description |
|-------------|----------------------|
| 5000098 | 18" Low Profile |
| ● 5002888 | 18" Super Tournament |
| 503478 | 22" Low Profile |
| 503477 | 22" High Profile |
| ● 5002887 | 22" Super Tournament |

● Standard Bedknife

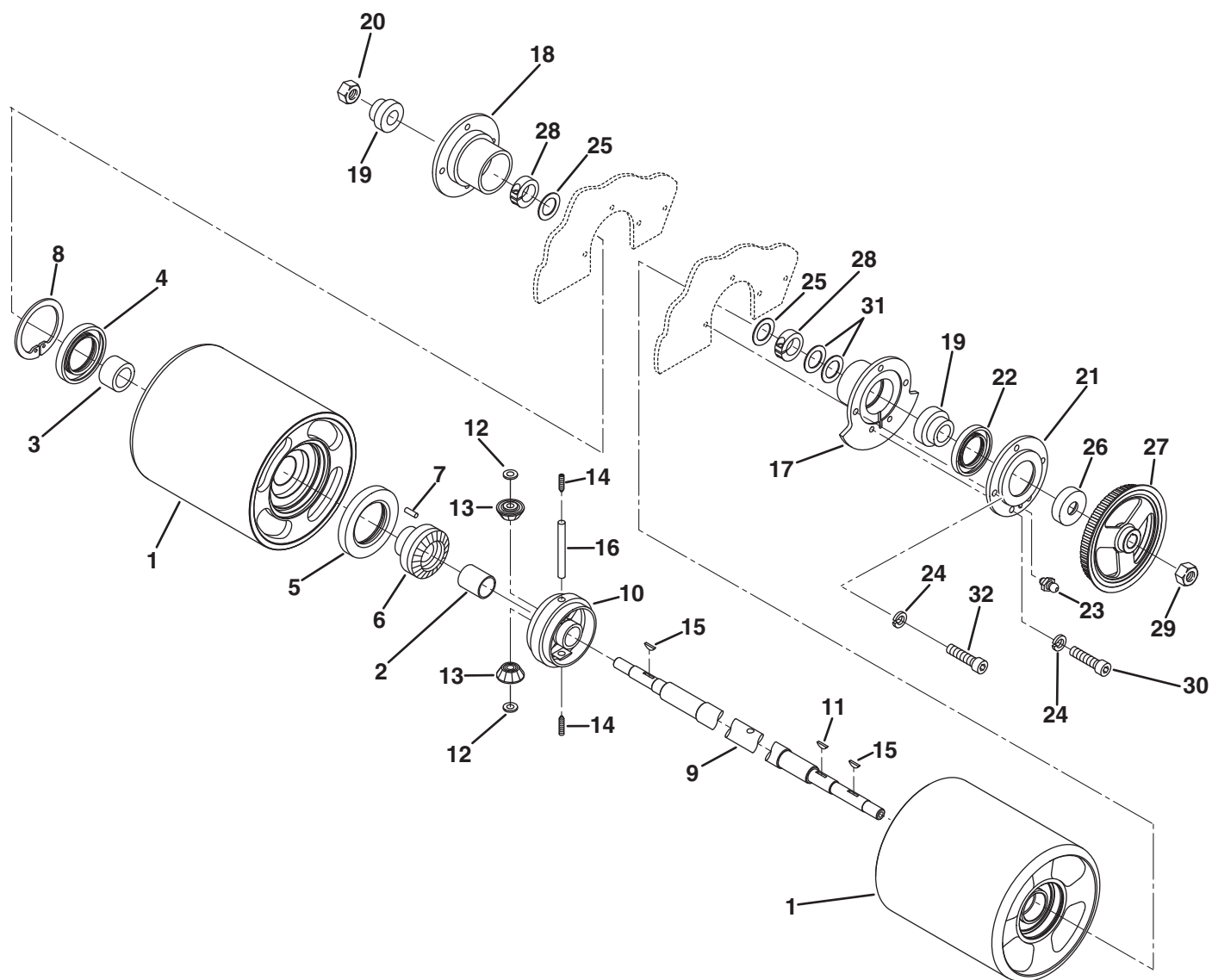
Optional MagKnife Bedknives

| Part Number | Description |
|-------------|----------------------|
| 4131371 | 18" Low Profile |
| 4131373 | 18" Tournament |
| 4131004 | 18" Super Tournament |
| 4131369 | 22" High Profile |
| 4131001 | 22" Low Profile |
| 4131370 | 22" Tournament |
| 4131003 | 22" Super Tournament |

| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|-----------|------|------------------------------------|--|
| 1 | 4170204 | 1 | Frame, 18" Reel | Used on 63301, 63314, 63328, and 63332 |
| 1 | 5002577 | 1 | Frame, 22" Reel | Used on 63303, 63312, 63326, and 63330 |
| 2 | 400192 | 8 | Screw, 5/16-18 x 1-1/2" Hex Head | |
| 3 | 446142 | 1 | Lockwasher, 3/8 Heavy | |
| 4 | 4225504 | 1 | 15 Blade, 18" Left Hand Reel | Used on 63328 and 63332 |
| 4 | 4225505 | 1 | 15 Blade, 22" Left Hand Reel | Used on 63326 and 63330 |
| 4 | 4170220 | 1 | 11 Blade, 18" Left Hand Reel | Used on 63301 and 63314 |
| 4 | 5001101 | 1 | 11 Blade, 22" Left Hand Reel | Used on 63303 and 63312 |
| 5 | 1004756 | 1 | Bearing Housing | |
| 6 | 500534 | 1 | • Bearing, Cup and Cone | |
| 7 | 336962 | 1 | • Seal, Grease | |
| 8 | 471214 | 1 | • Grease Fitting | |
| 9 | 471242 | 1 | • Vent Fitting | |
| 10 | 445795 | 8 | Nut, 5/16-18 Spirallock Flange | |
| 11 | 304745 | 1 | Washer | |
| 12 | 458013 | 1 | Snap Ring | |
| 13 | 367164 | 1 | Spacer | |
| 14 | 2811055 | 1 | Backing, 18" Bedknife | |
| 14 | 5000415 | 1 | Backing, 22" Bedknife | |
| 15 | See Chart | 1 | Bedknife | |
| 16 | 3009138 | 13 | Screw, 1/4-20 x 1/2" Flat Head | |
| 17 | 315298 | 2 | Wheel Bolt, 7/16 x 3/4" | |
| 18 | 412503 | 4 | Screw, 3/8-16 x 1-1/4" Square Head | |
| 19 | 400294 | 1 | Screw, 3/8-24 x 1" Hex Head | |
| 20 | 453009 | 4 | Flat Washer, 5/16 | |
| 21 | 1000480 | 1 | Bearing Housing | |
| 22 | 500534 | 1 | • Bearing, Cup and Cone | |
| 23 | 336962 | 1 | • Seal, Grease | |
| 24 | 471214 | 1 | • Grease Fitting | |
| 25 | 471240 | 1 | • Vent Fitting | |
| 26 | 5002151 | 1 | Spring, Compression | |
| 27 | 364900 | 1 | Nut, Reel | |
| 28 | 453011 | 1 | Flat Washer, 3/8 | |
| 29 | 163892 | 1 | Seal | |

> Change from previous revision

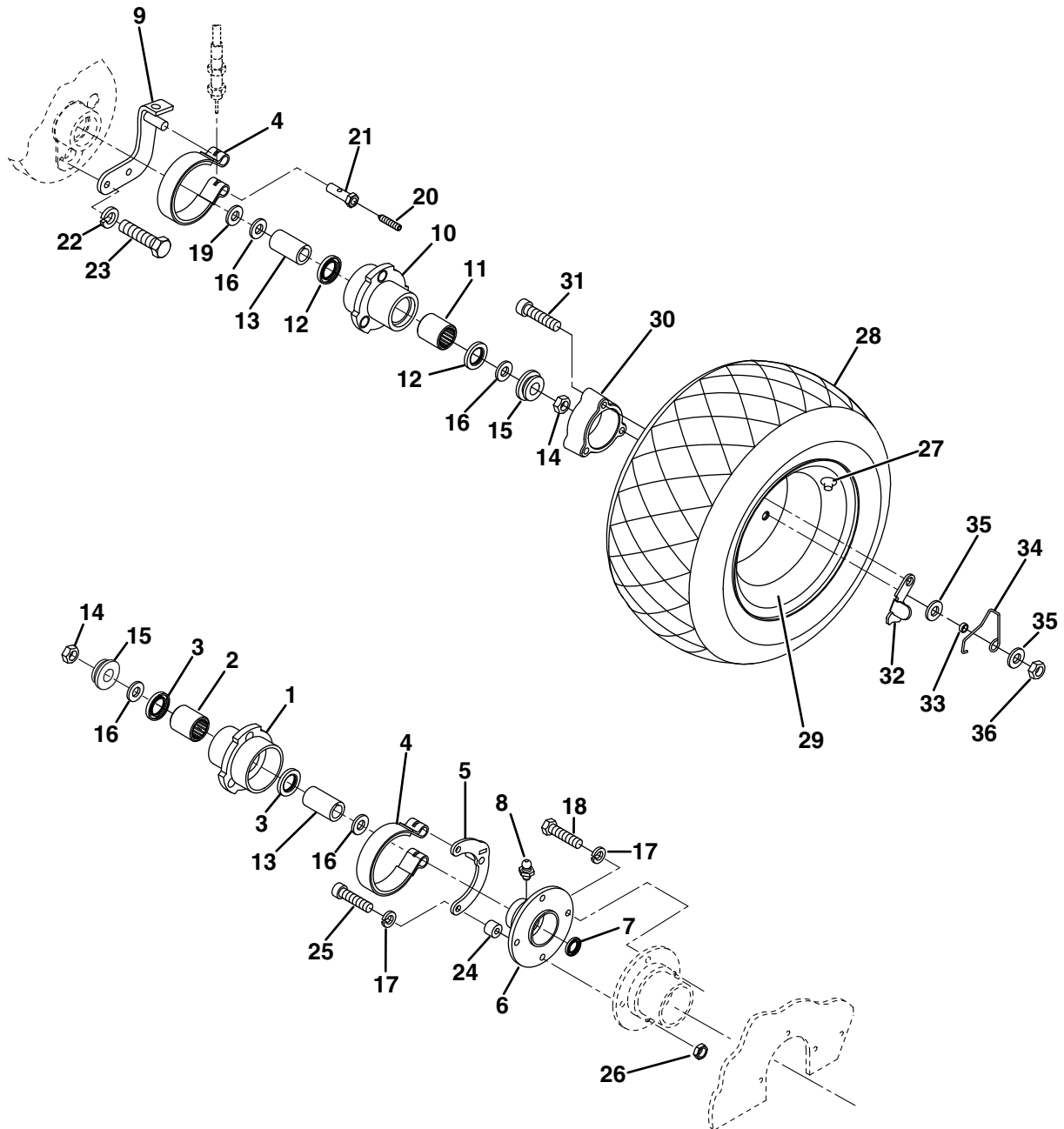
13.1 Differential and Rollers



| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|-----------------------------------|----------------------|
| 1 | 1000024 | 2 | 18" Smooth Roller | |
| 1 | 132655 | 2 | 22" Smooth Roller | |
| 1 | 1000027 | 2 | 26" Dimpled Roller | |
| 2 | 366699 | 1 | • Differential Gear Bushing | |
| 3 | 366698 | 1 | • Drum Bushing | |
| 4 | 366701 | 1 | • Grease Seal | |
| 5 | 366700 | 1 | • Grease Seal | |
| 6 | 241836 | 1 | • Differential Gear | |
| 7 | 319085 | 1 | • Pin | |
| 8 | 458127 | 1 | • Snap Ring | |
| 9 | 395419 | 1 | 18" Roller Shaft | |
| 9 | 395367 | 1 | 22" Roller Shaft | |
| 9 | 395418 | 1 | 26" Roller Shaft | |
| 10 | 241835 | 1 | Differential | |
| 11 | 463017 | 1 | Key, #9 Woodruff | |
| 12 | 308030 | 2 | Thrust Washer | |
| 13 | 202947 | 2 | Pinion Gear | |
| 14 | 415563 | 2 | Set Screw, 7/16-20 x 3/8" | |
| 15 | 463007 | 2 | Key, #7 Woodruff | |
| 16 | 308028 | 1 | Pinion Shaft | |
| 17 | 220318 | 1 | Bearing Housing | |
| 18 | 220319 | 1 | Bearing Housing | |
| 19 | 366693 | 2 | Bearing | |
| 20 | 2810096 | 1 | Nut, 1-14 Nylock Hex | |
| 21 | 164057 | 1 | Seal Cover | |
| 22 | 366702 | 1 | • Grease Seal | |
| 23 | 471214 | 1 | • Grease Fitting | |
| 24 | 446136 | 5 | Lockwasher, 5/16 Heavy | |
| 25 | 366697 | 2 | Spacer | |
| 26 | 366696 | 1 | Spacer | |
| 27 | 3004484 | 1 | Pulley, 56 Tooth | |
| 28 | 366695 | 2 | Locking Collar | |
| 29 | 367029 | 1 | Nut, 3/4-16 Hex Nylock Jam | |
| 30 | 434024 | 2 | Screw, 5/16-18 x 3/4" Socket Head | |
| 31 | 361451 | 2 | Washer | |
| 32 | 434003 | 3 | Screw, 5/16-18 x 1" Socket Head | |

> Change from previous revision

14.1 Parking Brake and Wheels



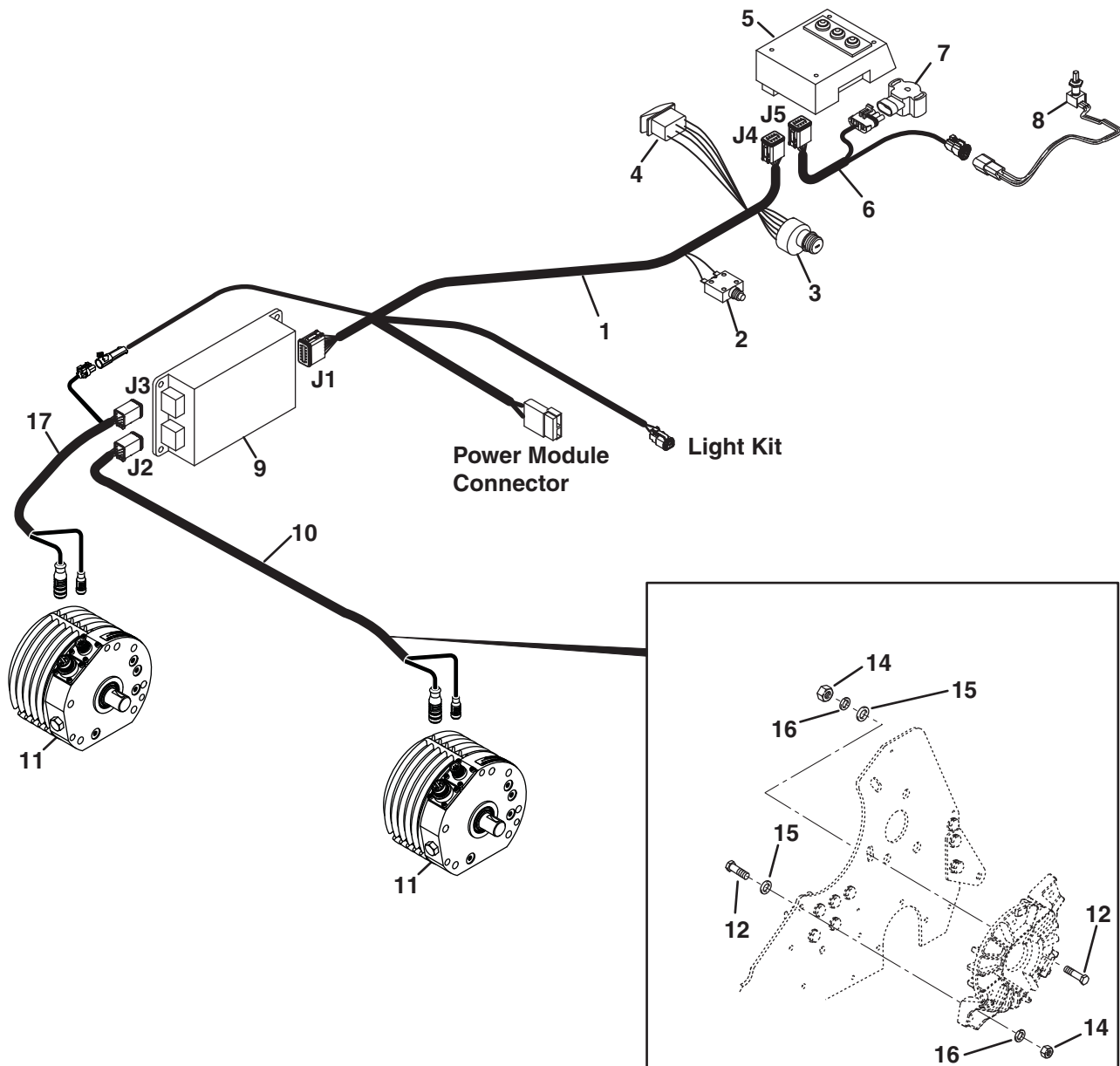
| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|-------------------------------------|----------------------|
| 1 | 1000476 | 1 | R.H. Hub | Left Side Only |
| 2 | 338766 | 1 | • Bearing | |
| 3 | 366705 | 2 | • Grease Seal | |
| 4 | 164056 | 2 | Brake Band | |
| 5 | 132663 | 1 | Brake Mounting Bracket | |
| 6 | 132658 | 1 | Seal Housing | |
| 7 | 365753 | 1 | • Grease Seal | |
| 8 | 4128725 | 1 | • Grease Fitting | |
| 9 | 164063 | 1 | Brake Mounting Bracket | |
| 10 | 1000477 | 1 | L.H. Hub | |
| 11 | 338766 | 1 | • Bearing | |
| 12 | 366705 | 2 | • Grease Seal | |
| 13 | 366717 | 2 | Clutch Sleeve | |
| 14 | 445801 | 2 | Nut, 5/8-18 Hex Jam Lock | |
| 15 | 366718 | 2 | Latching Collar | |
| 16 | 366697 | 4 | Bushing | |
| 17 | 446136 | 4 | Lockwasher, 5/16 Heavy | |
| 18 | 400188 | 2 | Screw, 5/16-18 x 1" Hex Head | |
| 19 | 361451 | 1 | Washer | |
| 20 | 415513 | 2 | Set Screw, 1/4-20 x 1/2" | |
| 21 | 366742 | 2 | Brake Band Pin | |
| 22 | 446130 | 2 | Lockwasher, 1/4 Heavy | |
| 23 | 400108 | 2 | Screw, 1/4-20 x 3/4" Hex Head | |
| 24 | 366737 | 2 | Spacer | |
| 25 | 434032 | 2 | Screw, 5/16-18 x 1-3/4" Socket Head | |
| 26 | 443106 | 1 | Nut, 5/16-18 Hex | |
| | 62293 | 1 | Pneumatic Transport Tire Kit | Optional Accessory |
| 27 | 360111 | 2 | • Valve | |
| 28 | 554847 | 2 | • Tire | |
| 29 | 5002905 | 2 | • Wheel, Gray | |
| 30 | 271920 | 2 | • Wheel Spacer | |
| 31 | 434049 | 6 | • Screw, 5/16-18 x 2" Socket Head | |
| 32 | 366719 | 2 | • Latch | |
| 33 | 366716 | 6 | • Spacer | |
| 34 | 366704 | 2 | • Spring | |
| 35 | 452004 | 12 | • Flat Washer, 5/16 | |
| 36 | 444718 | 6 | • Locknut, 5/16-18 Center | |

> Change from previous revision

| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|------------------------------------|--|
| 1 | 446116 | 2 | Lockwasher, #10 | <p>Used on 63300, 63302, 63305, 63311, 63313, 63315, 63325, 63327, 63329, and 63331</p> <p>Used on 63301, 63303, 63312, 63314, 63326, 63328, 63330, and 63332</p> <p>Reference M1, See 22.1</p> <p>Used on 63301, 63303, 63312, 63314, 63326, 63328, 63330, and 63332</p> |
| 2 | 2000148 | 1 | Bracket, Bearing | |
| 3 | 2811071 | 1 | Belt, Polychain, 80 Tooth | |
| 4 | 2811223 | 1 | Pully, 18 Tooth | |
| 5 | 2811107 | 1 | Pully, 112 Tooth | |
| 6 | 3001273 | 1 | Shaft | |
| 7 | 2811110 | 1 | Fixed Head Pulley Cover | |
| 7 | 4140154 | 1 | Floating Head Pulley Cover | |
| 8 | 4102241 | 1 | Cover, Belt | |
| 9 | 4104641 | 1 | Belt, 130 Tooth | |
| 10 | 2811108 | 1 | Pulley, 23 Tooth | |
| 11 | 4152677 | 1 | Mount, Motor | |
| 12 | 4207260 | 1 | Motor, Brushless Bi-Directional | |
| 13 | 463029 | 1 | Key, Woodruff | |
| 14 | 367554 | 2 | Bearing, Needle | |
| 15 | 446130 | 3 | Lockwasher, 1/4 Heavy | |
| 16 | 444708 | 3 | Locknut, 1/4-20 Center | |
| 17 | 400190 | 2 | Screw, 5/16-18 x 1-1/4" Hex Head | |
| 18 | 452006 | 1 | Flat Washer, 5/16 | |
| 19 | 446134 | 1 | Lockwasher, 5/16 | |
| 20 | 443106 | 1 | Nut, 5/16-18 Hex | |
| 21 | 434055 | 1 | Screw, 14-20 x 1-3/8" Socket Head | |
| 22 | 400262 | 2 | Screw, 3/8-16 x 1" Hex Head | |
| 23 | 453011 | 2 | Flat Washer, 3/8 | |
| 24 | 446142 | 2 | Lockwasher, 3/8 Heavy | |
| 25 | 443110 | 2 | Nut, 3/8-16 Hex | |
| 26 | 434034 | 2 | Screw, 10-24 x 1" Socket Head | |
| 27 | 400106 | 3 | Screw, 1/4-20 x 5/8" Hex Head | |
| 28 | 434031 | 1 | Screw, 1/4-20 x 3/4" Socket Head | |
| 29 | 403744 | 3 | Screw, #10-24 x 1/2" Hex Head | |
| 30 | 359864 | AR | Thrust Washer | |
| 31 | 366707 | 1 | Ball Bearing | |
| 32 | 443806 | 2 | Nut, 5/16-24 Hex Jam | |
| 33 | 452002 | 3 | Flat Washer, #10 | |
| 34 | 434042 | 2 | Screw, 1/4-20 x 1-1/2" Socket Head | |

> Change from previous revision

16.1 Clamps and Wire Harness

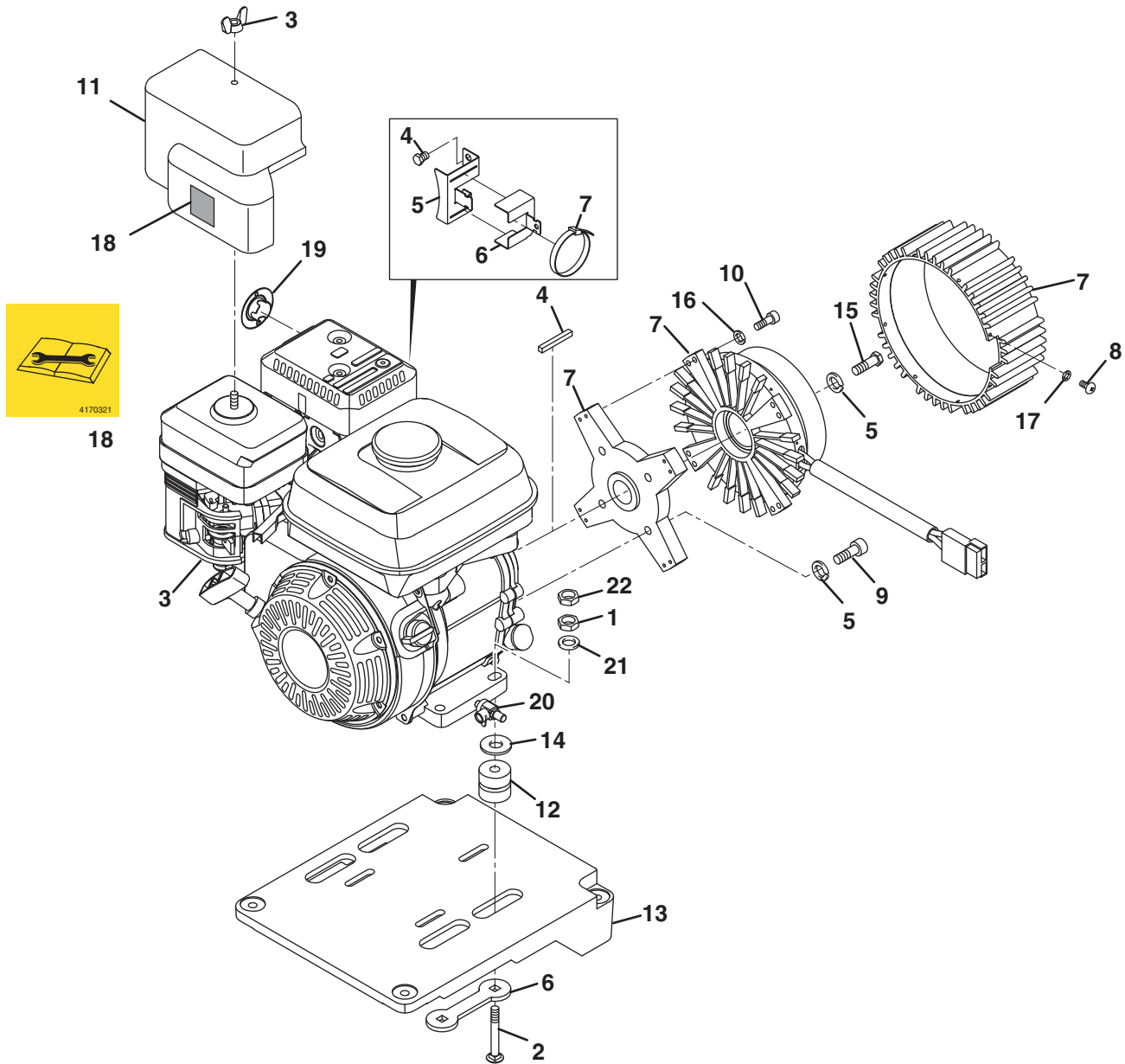


| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|----------------------------------|--|
| 1 | 4204921 | 1 | Harness, Power Module | |
| 2 | REF | 1 | • 25 Amp Circuit Breaker | Reference CB1, See 3.1, 22.1 |
| 3 | REF | 1 | Key Switch | Reference SW1, See 3.1, 22.1 |
| 4 | REF | 1 | Reel Switch | Reference SW2, See 3.1, 22.1 |
| 5 | REF | 1 | LCD Display | Reference U2, See 3.1, 22.1 |
| 6 | 4146678 | 1 | Harness, LCD Module | |
| 7 | REF | 1 | Bail Lever Potentiometer | Reference R2, See 1.1, 22.1 |
| 8 | REF | 1 | Throttle Potentiometer | Reference R1, See 1.1, 22.1 |
| 9 | REF | 1 | M806A Controller | Reference U1, See 4.1, 22.1 |
| 10 | 4204920 | 1 | Harness, Traction Motor | |
| 11 | REF | 1 | Traction Motor | Reference M1, See 15.1, 22.1 |
| 12 | 400190 | 2 | Screw, 5/16-18 x 1-1/4" Hex Head | |
| 13 | REF | 1 | Reel Motor | Reference M2, See 7.1, 10.1, 22.1 |
| 14 | 443106 | 2 | Nut, 5/16-18 Hex | |
| 15 | 452006 | 2 | Flat Washer, 5/16 | |
| 16 | 446134 | 2 | Lockwasher, 5/16 | |
| 17 | 4204840 | 1 | Harness, Reel Motor | |

> Change from previous revision

17.1 Genset Power Source

| | | |
|------------------------|------------------------|------------------------|
| Serial No. 63300 - All | Serial No. 63304 - All | Serial No. 63327 - All |
| Serial No. 63301 - All | Serial No. 63305 - All | Serial No. 63328 - All |
| Serial No. 63302 - All | Serial No. 63325 - All | |
| Serial No. 63303 - All | Serial No. 63326 - All | |

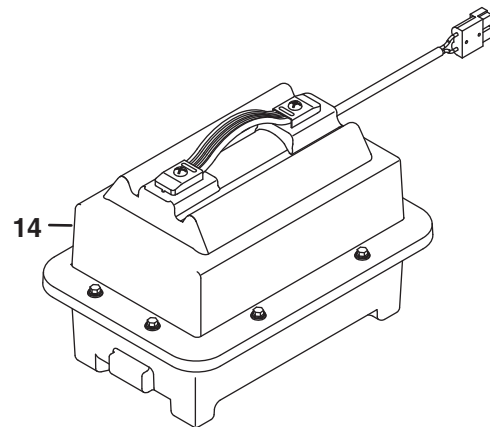
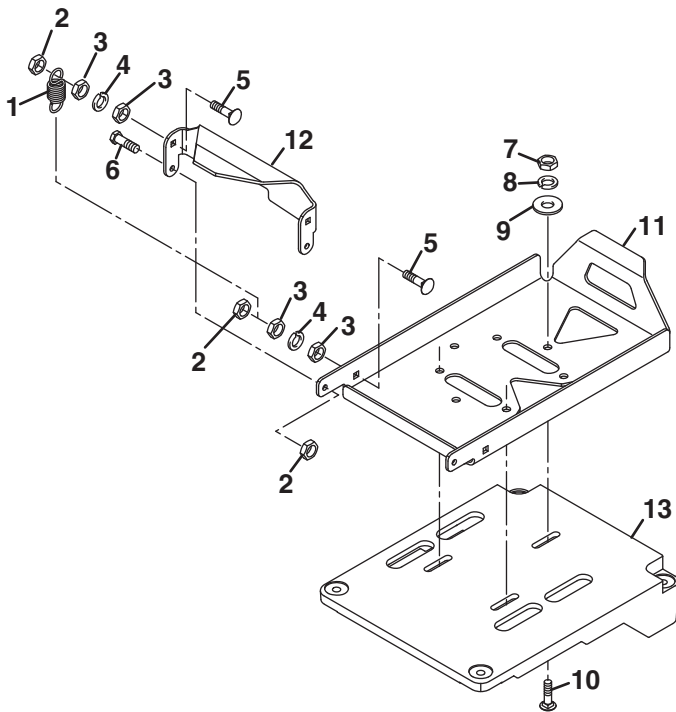


| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|------------------------------------|--|
| 1 | 443106 | 4 | Nut, 5/16-18 Hex | Secures Generator Output Cable to deflector brackets |
| 2 | 441687 | 4 | Carriage Bolt, 5/16-18 x 3" | |
| 3 | 503532 | 1 | Engine, 4HP Honda | |
| 4 | 320774 | 1 | • Key, 3/16 x1-1/2" Square | |
| 5 | 446136 | 5 | Lockwasher, 5/16 Heavy | |
| 6 | 4165761 | 2 | Plate, Engine Mount | |
| 7 | 4166120 | 1 | Generator, 1kW | |
| 8 | 450504 | 8 | Screw, M3-.5 x 6 mm Pan Head | |
| 9 | 434060 | 4 | Screw, 5/16-24 x 7/8" Socket Hd | |
| 10 | 450697 | 8 | Screw, M5-.8 x 16 mm Socket Hd | |
| 11 | 4145785 | 1 | Cover, Throttle | |
| 12 | 4163760 | 4 | Iso-Mount | |
| 13 | REF | 1 | Power Module Mounting Plate | |
| 14 | 455043 | 4 | Flat Washer, 3/8 | |
| 15 | 800646 | 1 | Screw, 5/16-24 x 1-1/4 Socket Head | |
| 16 | 450409 | 8 | Lockwasher, M5 | |
| 17 | 450407 | 8 | Lockwasher, M3 | |
| 18 | 4170321 | 1 | Decal, Maintenance | |
| 19 | 4170500 | 1 | Trim Muffler | |
| 20 | 4172080 | 1 | Valve, Oil Drain | |
| 21 | 453009 | 4 | Flat Washer, 5/16 | |
| 22 | 443806 | 4 | Nut, 5/16-18 Hex Jam | |
| 23 | 400218 | 1 | Screw, 5/16-14 x 1/2" Hex Head | |
| 24 | 4182521 | 1 | Bracket, Deflector | |
| 25 | 4182522 | 1 | Cover, Deflector | |
| 26 | 473142 | 1 | Cable Tie | |

> Change from previous revision

18.1 Battery Power Source

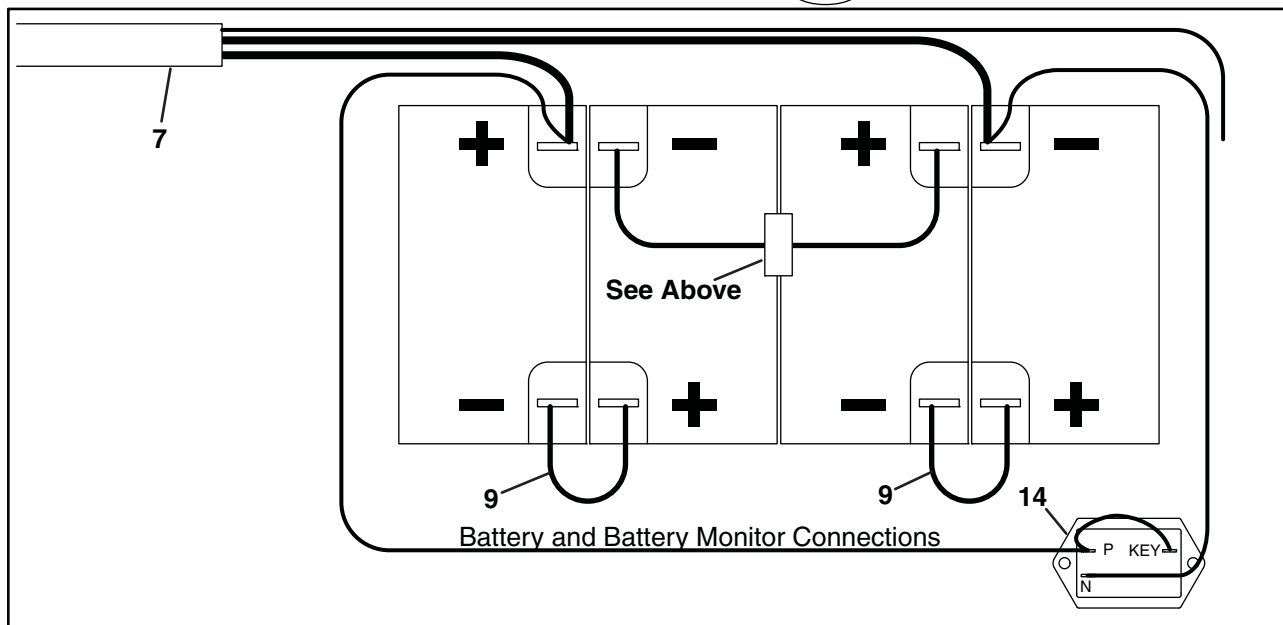
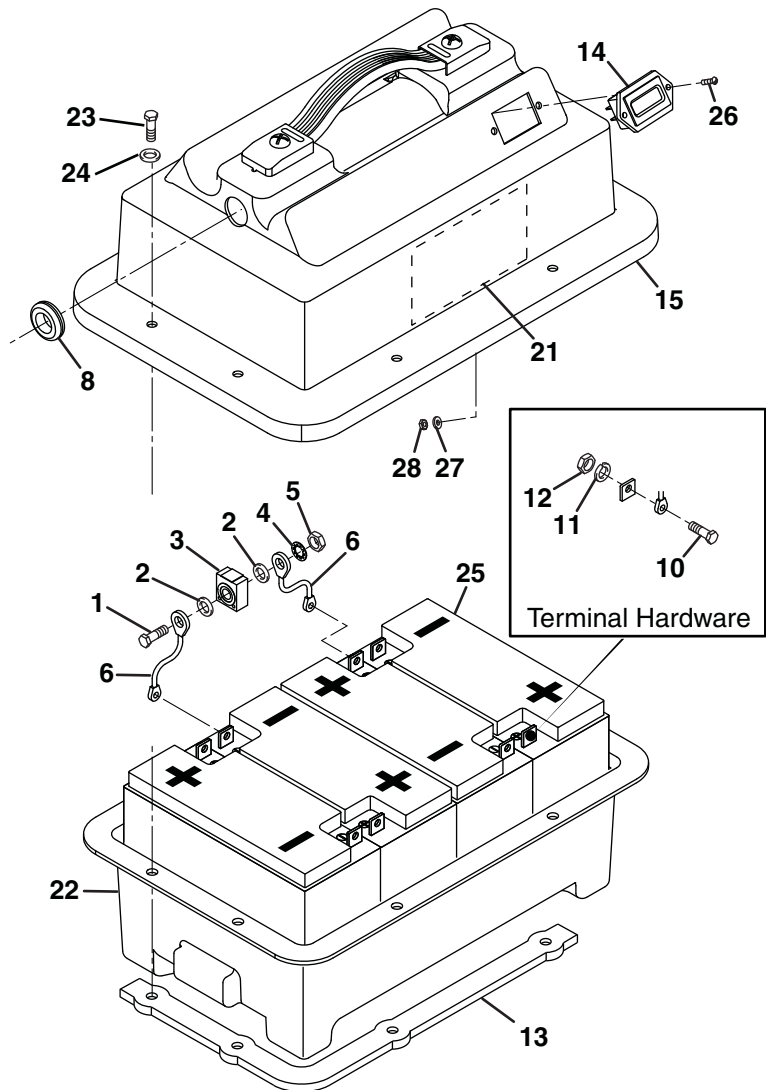
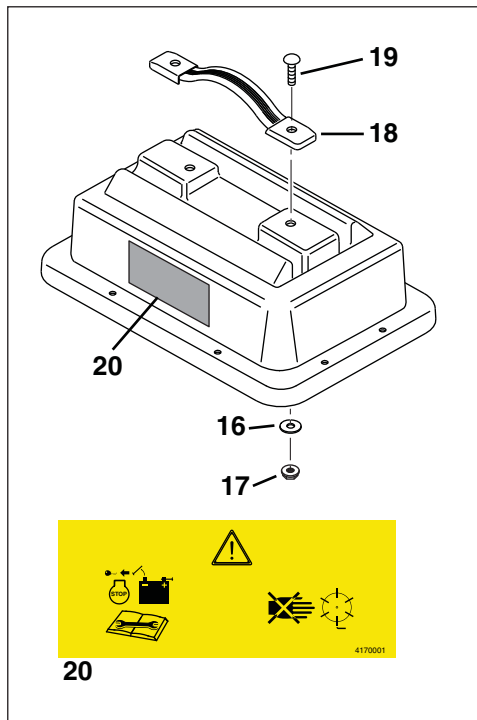
| | | |
|------------------------|------------------------|------------------------|
| Serial No. 63306 - All | Serial No. 63314 - All | Serial No. 63331 - All |
| Serial No. 63311 - All | Serial No. 63315 - All | Serial No. 63332 - All |
| Serial No. 63312 - All | Serial No. 63329 - All | |
| Serial No. 63313 - All | Serial No. 63330 - All | |



| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|------------------------------|----------------------|
| 1 | 2809837 | 2 | Spring, Extension | See 19.1 |
| 2 | 444708 | 6 | Locknut, 1/4-20 Center | |
| 3 | 443102 | 8 | Nut, 1/4-20 Hex | |
| 4 | 446130 | 4 | Lockwasher, 1/4 Heavy | |
| 5 | 441604 | 4 | Carriage Bolt, 1/4-20 x 1" | |
| 6 | 400108 | 2 | Screw, 1/4-20 x 3/4 Hex Head | |
| 7 | 443106 | 3 | Nut, 5/16-18 Hex | |
| 8 | 446136 | 3 | Lockwasher, 5/16 Heavy | |
| 9 | 452006 | 3 | Flat Washer, 5/16 | |
| 10 | 440082 | 3 | Carriage Bolt, 5/16-18 x 1" | |
| 11 | 4104080 | 1 | Battery Tray | |
| 12 | 2811206 | 1 | Clip | |
| 13 | REF | 1 | Power Module Mount | |
| 14 | 68668 | 1 | Battery Pack | |
| 15 | 4140373 | 1 | Decal, Warning | |

> Change from previous revision

19.1 Battery Case

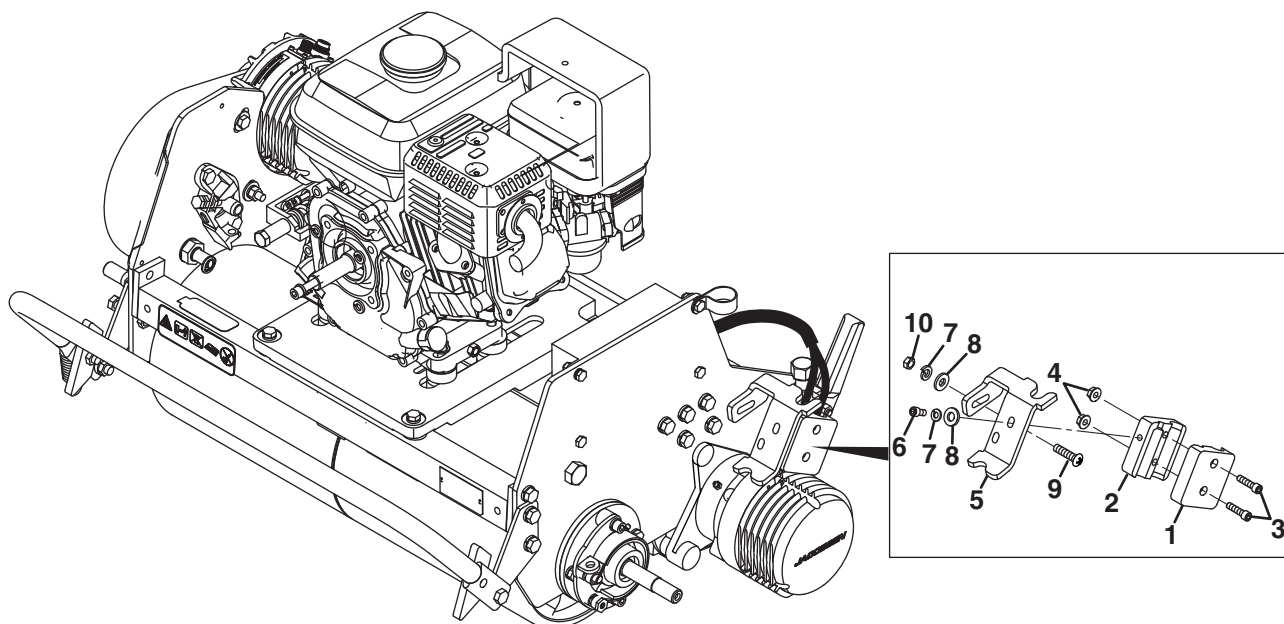


| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|-------------------------------------|--|
| | 68668 | 1 | Battery Case | Does Not Include Batteries |
| 1 | 4105660 | 1 | • Screw, Nylon | Reference F1, See 22.1 |
| 2 | 452004 | 2 | • Flat, Washer 1/4 | |
| 3 | 4105800 | 1 | • Fuse, 50A | |
| 4 | 447214 | 1 | • Lockwasher, 5/16 Internal | |
| 5 | 443106 | 1 | • Nut, 5/16 Hex | |
| 6 | 2811664 | 2 | • Cable | |
| 7 | 2811662 | 1 | • Main Cable | |
| 8 | 366984 | 1 | • Grommet | |
| 9 | 2811663 | 2 | • Cable, Jumper | |
| 10 | 403741 | 8 | • Screw, #8-32 x 5/8" Hex Head | |
| 11 | 444306 | 8 | • Nut, 8-32 Hex | |
| 12 | 446112 | 8 | • Lockwasher, #8 Heavy | |
| 13 | 4101600 | 2 | • Strap, Battery Case | |
| 14 | 4245270 | 1 | • Gauge, Battery | Reference U4, See 22.1 Includes Decals |
| 15 | 2811221 | 1 | • Lid, Battery Case | |
| 16 | 455058 | 2 | • • Flat Washer, 1/4 | |
| 17 | 444708 | 2 | • • Locknut, 1/4-20, Center Lock | |
| 18 | 2811220 | 1 | • • Handle, Battery Case | |
| 19 | 404022 | 2 | • • Screw, 1/4-20 x 1" Truss Head | |
| 20 | 4170001 | 1 | • • Decal, Danger | |
| 21 | | | | |
| 22 | 2809762 | 1 | • Battery Case, Lower Half | |
| 23 | 408851 | 8 | • Screw, 1/4-20 x 3/4" Hex Self Tap | |
| 24 | 453023 | 8 | • Flat Washer, 1/4 | |
| 25 | N/S | 4 | Battery, 12V | Reference B1, B2, B3, B4, See 22.1 |
| 26 | 402006 | 2 | Screw, #6-32 x 1/2" Slotted Round | |
| 27 | 450419 | 2 | Flat Washer, #6 | |
| 28 | 444304 | 2 | Nut, #6-32 Hex | |

> Change from previous revision

20.1 Fixed Head Motor Clamp

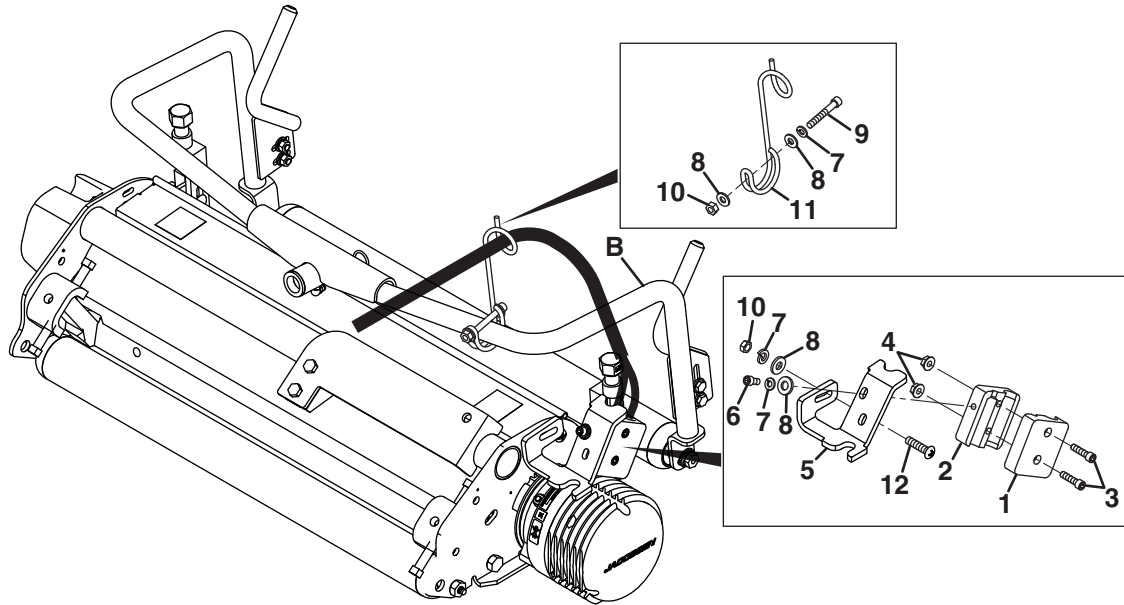
Serial No. All



| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|----------------------------------|----------------------|
| 1 | 4244463 | 1 | Clamp, Front Cordset Connector | |
| 2 | 4244850 | 1 | Clamp, Rear Cordset Connector | |
| 3 | 434029 | 2 | Screw, 1/4-20 x 1" Hex Socket | |
| 4 | 445784 | 2 | Nut, 1/4-20 Whizlock Flange | |
| 5 | 4246112 | 1 | Bracket, Clamp | |
| 6 | 434028 | 1 | Screw, 1/4-20 x 3/4" Socket Head | |
| 7 | 446130 | 2 | Lockwasher, 1/4 Heavy | |
| 8 | 453023 | 2 | Flat Washer, 1/4 | |
| 9 | 404022 | 1 | Screw, 1/4-20 x 1" Truss Head | |
| 10 | 443102 | 1 | Nut, 1/4-20 Hex | |

> Change from previous revision

21.1 Floating Head Motor Clamp

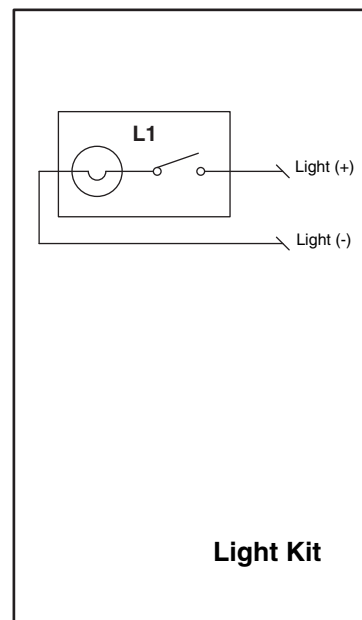
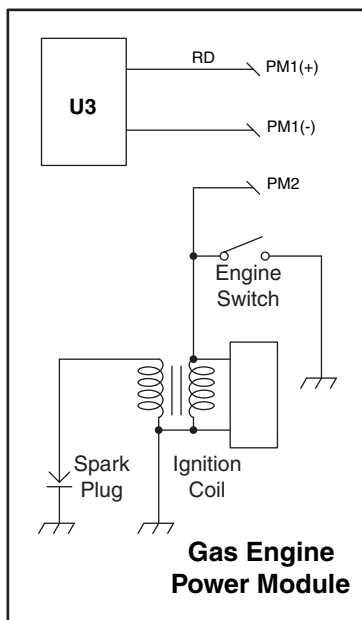
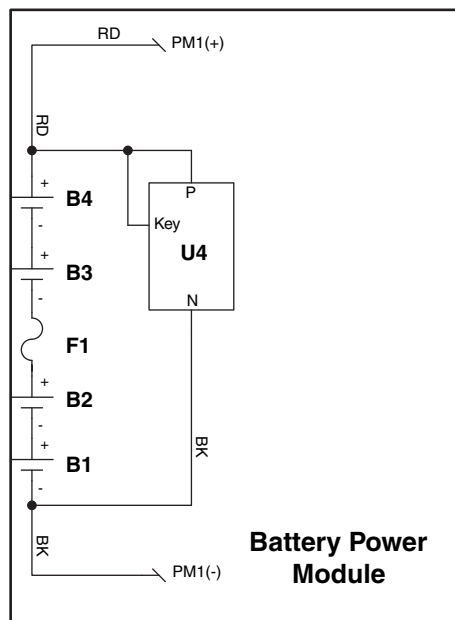
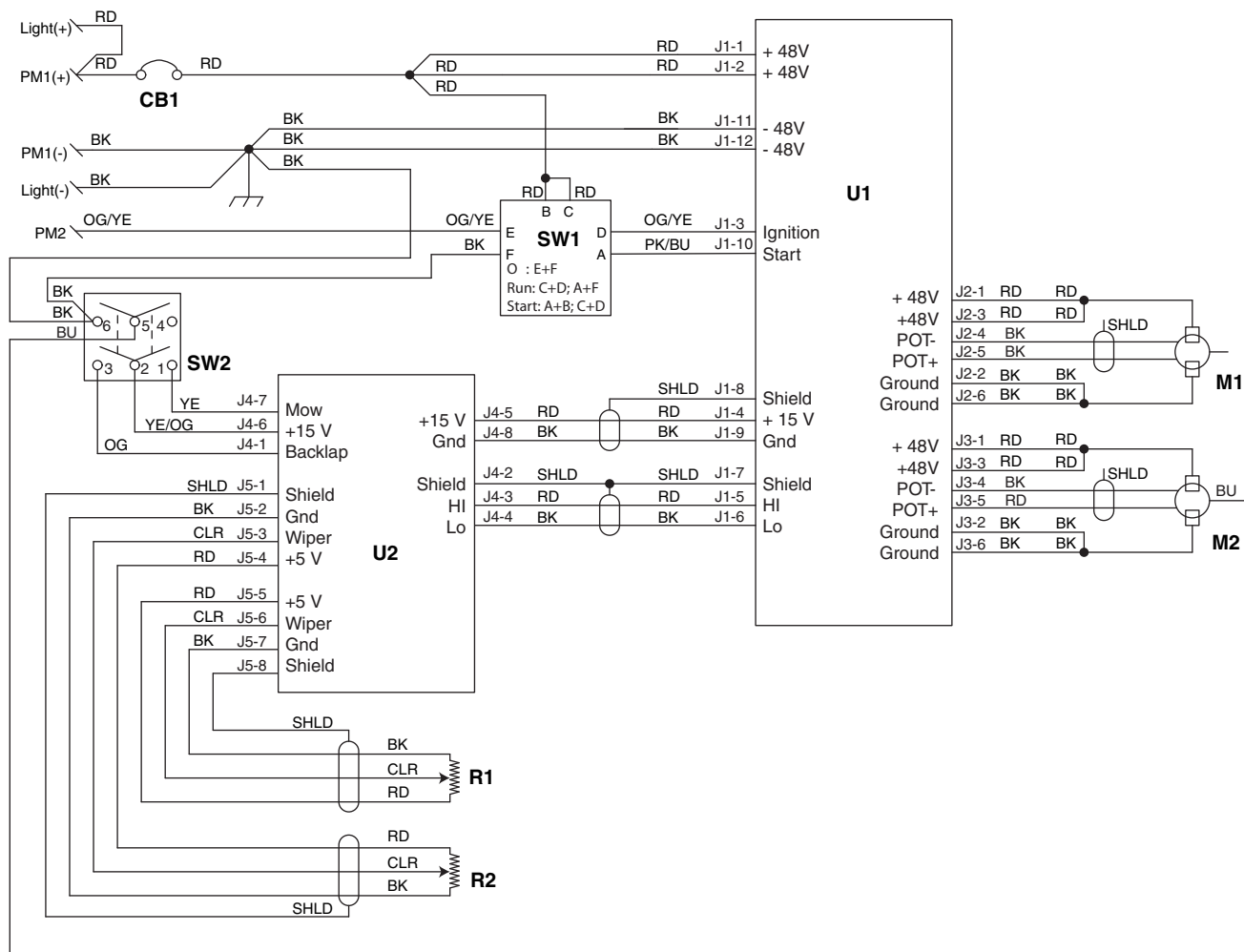


| Item | Part No. | Qty. | Description | Serial Numbers/Notes |
|------|----------|------|------------------------------------|----------------------|
| 1 | 4244463 | 1 | Clamp, Front Cordset Connector | |
| 2 | 4244850 | 1 | Clamp, Rear Cordset Connector | |
| 3 | 434029 | 2 | Screw, 1/4-20 x 1" Hex Socket | |
| 4 | 445784 | 2 | Nut, 1/4-20 Whizlock Flange | |
| 5 | 4246112 | 1 | Bracket, Clamp | |
| 6 | 434011 | 1 | Screw, 1/4-20 x 5/8" Socket Head | |
| 7 | 446130 | 3 | Lockwasher, 1/4 Heavy | |
| 8 | 453023 | 4 | Flat Washer, 1/4 | |
| 9 | 434054 | 1 | Screw, 1/4-20 x 1-3/4" Socket Head | |
| 10 | 443102 | 2 | Nut, 1/4-20 Hex | |
| 11 | 4244893 | 1 | Support, Cable | |
| 12 | 404022 | 1 | Screw, 1/4-20 x 1" Truss Head | |

> Change from previous revision

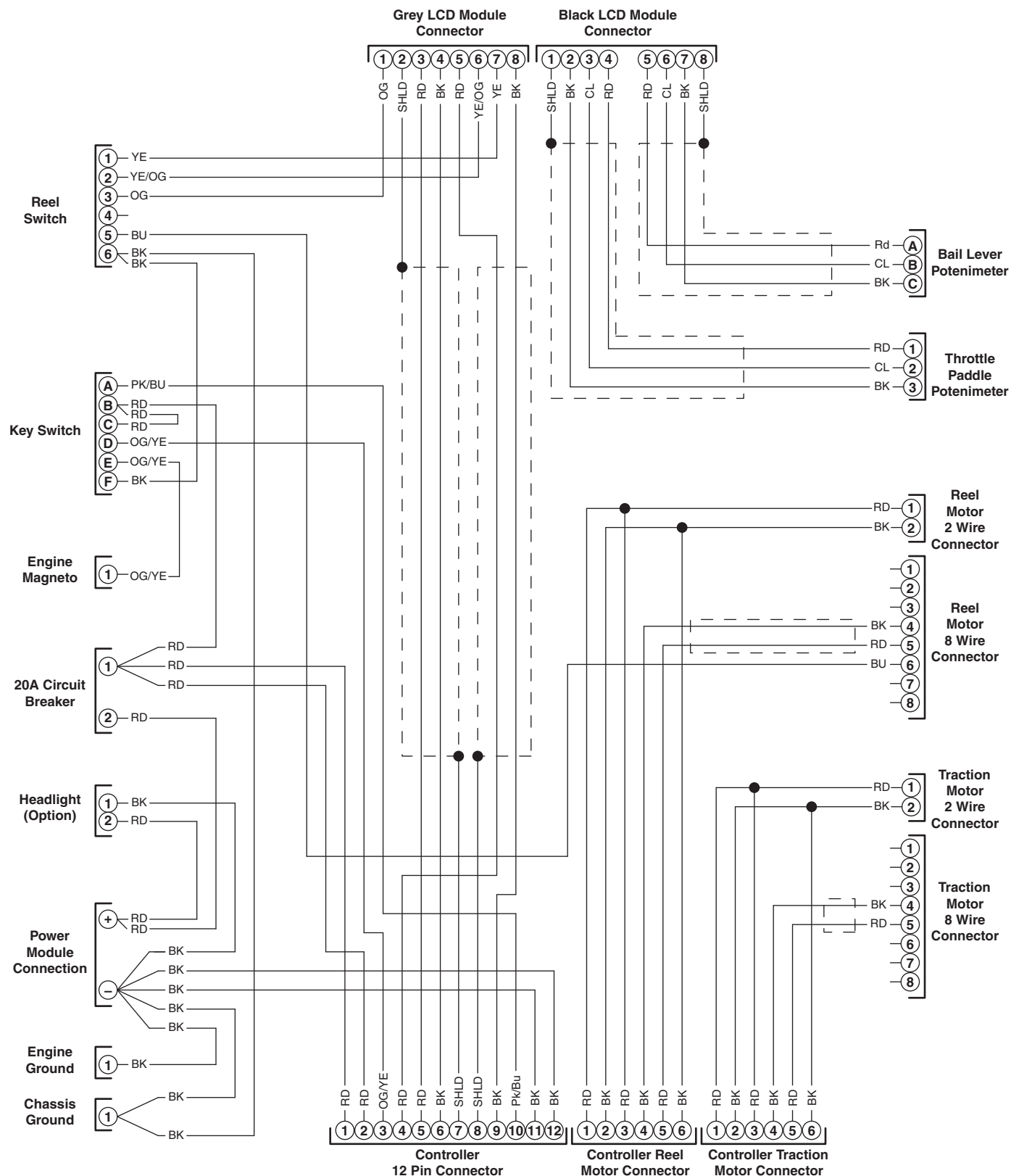
22.1 Electrical Schematic

Serial No. All



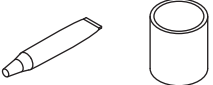
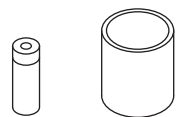
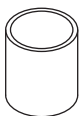
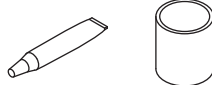

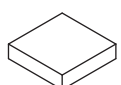


| Item | Reference Illustration | Part Number | Description | Serial Numbers/Notes |
|------------|------------------------|-------------|-----------------------------|---|
| B1 | See 19.1 | N/S | 12 Volt SLA Battery | Obtain batteries locally or through your Jacobsen Dealer Battery Power Module Only |
| B2 | See 19.1 | N/S | 12 Volt SLA Battery | |
| B3 | See 19.1 | N/S | 12 Volt SLA Battery | |
| B4 | See 19.1 | N/S | 12 Volt SLA Battery | |
| CB1 | See 3.1 | 4169341 | 25 Amp Circuit Breaker | Included with Harness |
| F1 | See 19.1 | 4105800 | 50 Amp Fuse (Main) | Battery Power Module Only |
| M1 | See 15.1 | 4207260 | Traction Motor | Fixed Head Units |
| M2 | See 7.1 or 10.1 | 4207260 | Reel Motor | |
| R1 | See 1.1 | 4136324 | Hand Throttle Potentiometer | |
| R2 | See 1.1 | 4145428 | Bail Lever Potentiometer | |
| SW1 | See 3.1 | 4165020 | Key Switch | Gen-Set Power Module Only Battery Power Module Only |
| SW2 | See 3.1 | 4165062 | Reel Switch | |
| U1 | See 11.1 | 4166900 | M806A Controller | |
| U2 | See 3.1 | 4203321 | LCD Display | |
| U3 | See 19.1 | 4166120 | Generator, 1kW | |
| U4 | See 19.1 | 4171680 | Battery Gauge | |

22.1 Wiring Diagram



Fluids and Compounds

| | | |
|---|--|---|
| Hydraulic Fluid* | |  |
| 5001405 | Two 2-1/2 Gallon Container of ISO VG68 Oil | |
| 5001404 | One 5 Gallon Pail of ISO VG68 Oil | |
| 2500548 | Two 2-1/2 Gallon Container of 10W30 Oil | |
| 2500546 | One 5 Gallon Pail of 10W30 Oil | |
| 503409 | Two 2-1/2 Gallon Container of ATF Fluid | |
| 503407 | One 5 Gallon Pail of ATF Fluid | |
| 2-Cycle Oil | |  |
| 554599 | Twenty Four 8 Ounce Plastic Container | |
| Grease | |  |
| 5000067 | One 5 Gallon Pail OO-Grease | |
| 5000068 | Twenty Four 8 Ounce Tube OO-Grease | |
| Paint | |  |
| 4184140 | 12 Ounce Orange Aerosol Can | |
| 2500789 | Twelve 1 Quart Can Orange | |
| 546409 | Two 1 Gallon Can Orange | |
| 5002631 | Hunter Green Aerolol Can | |
| 838140 | 16 Ounce Ransomes Green Aerosol Can | |
| 4112764 | 1 Quart Can Ransomes Green | |
| Lapping Compound | |  |
| 5002488 | One 10 Pound Pail of 80 Grit | |
| 5002490 | One 25 Pound Pail of 80 Grit | |
| 5002489 | One 10 Pound Pail of 120 Grit | |
| 5002491 | One 25 Pound Pail of 120 Grit | |
| Specialty Compound | |  |
| 365422 | 5.3 Ounce Tube of Electrical Insulating Gel | |
| 5001581 | 14 Ounce Can of Lubriplate Multi Lube A | |
| 523248 | Chain Lubricant | |
| 4136736 | Zinc Spray Corrosion Protection | |
| Biodegradable Hydraulic Fluid* | |  |
| 5003102 | One 55 Gallon Drum Jacobsen GreensCare 68 | |
| 5003103 | One 5 Gallon Pail Jacobsen GreensCare 68 | |
| 5003105 | One 55 Gallon Drum Jacobsen GreensCare 46 | |
| 5003104 | One 5 Gallon Pail Jacobsen GreensCare 46 | |
| 4115976 | One 55 Gallon Drum Jacobsen GreensCare 32 | |
| 4115977 | One 5 Gallon Pail Jacobsen Greens Care 32 | |
| 4114701 | GreensCare Bio-Flush | |
| 5003106 | Twenty Four 14 Ounce Tube Greens Care Grease | |
| O-Ring Kit | |  |
| 5002452 | SAE O-Ring Boss (3/32 ~ 2" Tube O.D.) | |
| 5002453 | Common O-Ring Kit | |
| 5002454 | O-Ring Face Seal ORFS (-4 ~ -24 ORS Tube Size) | |
| Right Start Kit for New Machines | | |
| See your local Jacobsen Dealer | | |
| On-Time Maintenance Kit | | |
| See your local Jacobsen Dealer | | |

* Refer to the Operator's manual or the Parts & Maintenance Manual for the correct hydraulic oil requirements for your machine. Jacobsen offers a High Usage Parts Catalog illustrating commonly used Parts through easy to read line Drawings. See your local Jacobsen Dealer for a copy.

INDEX

| | | | | | | | |
|--------------|--------|--------------|--------|--------------|------------|--------------|--------|
| 1000018..... | 61, 63 | 3010286..... | 71, 73 | 367029..... | 67, 77 | 4140373..... | 87 |
| 1000019..... | 61 | 3010422..... | 71, 73 | 367164..... | 67, 75 | 4145428..... | 55, 93 |
| 1000024..... | 77 | 3010712..... | 71, 73 | 367512..... | 65 | 4145785..... | 85 |
| 1000027..... | 77 | 304745..... | 67, 75 | 367554..... | 81 | 4146678..... | 83 |
| 1000476..... | 79 | 308028..... | 77 | 395367..... | 77 | 4147696..... | 55 |
| 1000477..... | 79 | 308030..... | 77 | 395418..... | 77 | 4152677..... | 81 |
| 1000480..... | 75 | 315298..... | 75 | 395419..... | 77 | 4156781..... | 55 |
| 1002224..... | 73 | 319085..... | 77 | 4101600..... | 89 | 4156930..... | 71 |
| 1004756..... | 75 | 320774..... | 85 | 4102241..... | 81 | 4163680..... | 63 |
| 1004990..... | 71, 73 | 332844..... | 63 | 4104080..... | 87 | 4163760..... | 85 |
| 132655..... | 77 | 336962..... | 75 | 4104282..... | 57 | 4164220..... | 59 |
| 132658..... | 79 | 338675..... | 67 | 4104641..... | 81 | 4165020..... | 57, 93 |
| 132663..... | 79 | 338766..... | 79 | 4104720..... | 65, 67, 71 | 4165062..... | 57, 93 |
| 132674..... | 61, 63 | 343616..... | 69, 73 | 4105281..... | 67 | 4165241..... | 57 |
| 163892..... | 75 | 352726..... | 71 | 4105660..... | 89 | 4165263..... | 59 |
| 164056..... | 79 | 352737..... | 69, 73 | 4105800..... | 89, 93 | 4165280..... | 61 |
| 164057..... | 77 | 359864..... | 81 | 4108920..... | 71, 73 | 4165281..... | 61 |
| 164063..... | 79 | 360111..... | 79 | 4108924..... | 71, 73 | 4165761..... | 85 |
| 2000067..... | 55 | 361451..... | 77, 79 | 4114788..... | 71 | 4166120..... | 85, 93 |
| 2000072..... | 69 | 363047..... | 67 | 4117466..... | 61, 63 | 4166900..... | 59, 93 |
| 2000148..... | 81 | 364154..... | 55 | 4127051..... | 55 | 4167380..... | 55 |
| 202947..... | 77 | 364164..... | 61, 63 | 4127335..... | 69, 73 | 4167383..... | 61 |
| 220318..... | 77 | 364441..... | 69 | 4127340..... | 55 | 4167640..... | 59 |
| 220319..... | 77 | 364900..... | 67, 75 | 4127931..... | 61, 63 | 4167920..... | 55 |
| 241827..... | 69 | 365246..... | 73 | 4128662..... | 55 | 4168022..... | 61 |
| 241828..... | 69 | 365501..... | 65 | 4128707..... | 55 | 4168023..... | 61 |
| 241835..... | 77 | 365753..... | 79 | 4128725..... | 67, 79 | 4168401..... | 61 |
| 241836..... | 77 | 366317..... | 71 | 4128933..... | 55 | 4168480..... | 63 |
| 271920..... | 79 | 366424..... | 65 | 4130762..... | 55 | 4168481..... | 63 |
| 2809762..... | 89 | 366648..... | 67 | 4131406..... | 55 | 4168727..... | 71 |
| 2809837..... | 87 | 366650..... | 67 | 4131414..... | 55 | 4169040..... | 71 |
| 2809900..... | 56 | 366653..... | 65 | 4131618..... | 57 | 4169341..... | 57, 93 |
| 2809901..... | 56 | 366693..... | 77 | 4136324..... | 55, 93 | 4169840..... | 61, 63 |
| 2810096..... | 77 | 366695..... | 77 | 4136325..... | 55 | 4170001..... | 89 |
| 2811027..... | 73 | 366696..... | 77 | 4136328..... | 55 | 4170202..... | 67 |
| 2811055..... | 75 | 366697..... | 77, 79 | 4136366..... | 55 | 4170203..... | 67 |
| 2811071..... | 81 | 366698..... | 77 | 4136994..... | 71 | 4170204..... | 75 |
| 2811107..... | 81 | 366699..... | 77 | 4137303..... | 55 | 4170220..... | 75 |
| 2811108..... | 81 | 366700..... | 77 | 4137577..... | 71 | 4170321..... | 85 |
| 2811110..... | 81 | 366701..... | 77 | 4138778..... | 71 | 4170500..... | 85 |
| 2811206..... | 87 | 366702..... | 77 | 4139660..... | 69 | 4171380..... | 73 |
| 2811220..... | 89 | 366704..... | 79 | 4139661..... | 69 | 4171680..... | 93 |
| 2811221..... | 89 | 366705..... | 79 | 4139662..... | 69 | 4172080..... | 85 |
| 2811222..... | 67 | 366707..... | 81 | 4139678..... | 55 | 4172520..... | 56 |
| 2811223..... | 81 | 366708..... | 55 | 4140144..... | 63 | 4172521..... | 56 |
| 2811559..... | 56 | 366709..... | 65 | 4140145..... | 63 | 4172945..... | 67 |
| 2812384..... | 65, 71 | 366716..... | 79 | 4140147..... | 63 | 4174640..... | 73 |
| 3001273..... | 81 | 366717..... | 79 | 4140148..... | 63 | 4174641..... | 57 |
| 3001600..... | 65 | 366718..... | 79 | 4140151..... | 71 | 4174680..... | 61, 63 |
| 3002753..... | 57 | 366719..... | 79 | 4140152..... | 71 | 4174683..... | 71 |
| 3004484..... | 77 | 366726..... | 65 | 4140162..... | 71 | 4176800..... | 57 |
| 3005692..... | 69, 73 | 366727..... | 65 | 4140163..... | 73 | 4179720..... | 67 |
| 3008438..... | 73 | 366737..... | 79 | 4140164..... | 73 | 4179780..... | 67 |
| 3008439..... | 73 | 366742..... | 79 | 4140166..... | 71 | 4180300..... | 57 |
| 3008974..... | 69 | 366796..... | 61, 63 | 4140284..... | 73 | 4180321..... | 57 |
| 3009138..... | 65, 75 | 366984..... | 89 | 4140285..... | 73 | 4182521..... | 85 |

INDEX

| | |
|--------------|----------------|
| 4182522..... | 85 |
| 4193060..... | 59 |
| 4203321..... | 93 |
| 4204840..... | 83 |
| 4204920..... | 83 |
| 4204921..... | 83 |
| 4207260..... | 65, 71, 81, 93 |
| 4208160..... | 61 |
| 4208162..... | 61 |
| 4223946..... | 67 |
| 4225502..... | 67 |
| 4244463..... | 90 |
| 4244850..... | 90 |
| 4245270..... | 89 |
| 4246112..... | 90 |
| 4251470..... | 57 |
| 4255530..... | 59 |
| 4255550..... | 59 |
| 4256290..... | 55 |
| 5000102..... | 65 |
| 5000412..... | 65 |
| 5000415..... | 75 |
| 5000457..... | 65 |
| 5001101..... | 75 |
| 5002151..... | 75 |
| 5002577..... | 75 |
| 5002905..... | 79 |
| 500534..... | 67, 75 |
| 503532..... | 85 |
| 545940..... | 67 |
| 554847..... | 79 |
| 62293..... | 79 |
| 63305..... | 59 |
| 63306..... | 59 |
| 68668..... | 89 |
| 845279..... | 71 |

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